Public Utilities

Volume 63 No. 4 February 12, 1959

BETTER INVESTOR RELATIONS IN SMALLER CITIES
By Willard F. Stanley

« »

The Selling Side of Public Relations
By Robert Harsha Davidson

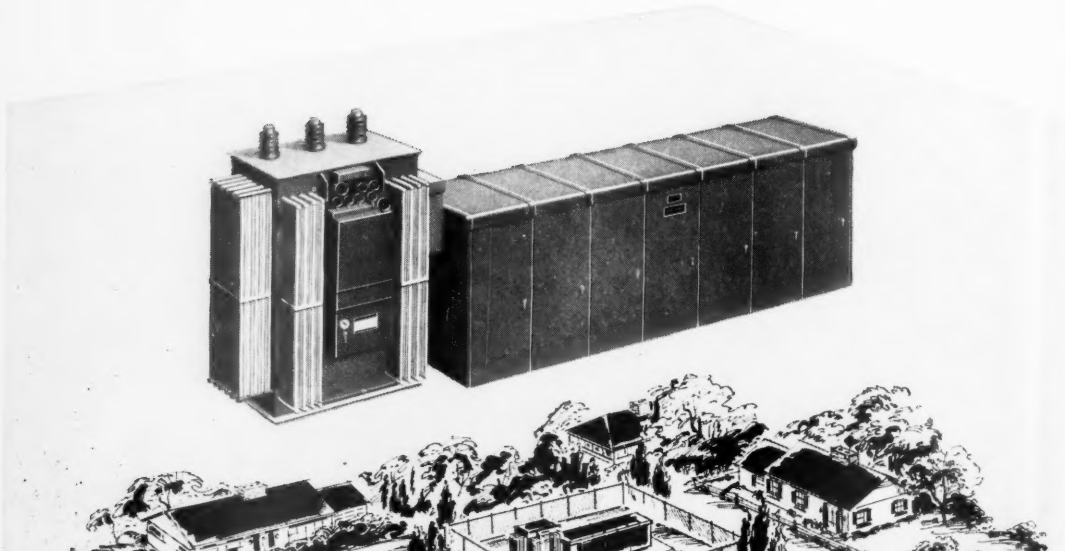
« »

Higher Charges for Federal Services?
By T. N. Sandifer

« »

Bell and the National Defense

Packaged unit substations mean packaged acceptance



NEIGHBORHOOD ACCEPTANCE of substations serving residential areas is easier to achieve when you purchase and install substations as factory-built units. They're more attractive, more compact, and much easier to landscape than space-consuming, piece-meal installations. General Electric Company, Apparatus Sales Division, Schenectady 5, New York. 512-22

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Public Utilities FORTNIGHTLY

VOLUME 63 FEBRUARY 12, 1959 NUMBER 4

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Better Investor Relations in Smaller Cities *Willard F. Stanley* 217

The cultivating job should not be concentrated entirely on security dealers in the large cities.

The Selling Side of Public Relations *Robert Harsha Davidson* 223

Telling the public about it, or at least seeing that the public knows about it, is the important other "half" of the public relations responsibility.

Higher Charges for Federal Services? *T. N. Sandifer* 231

This involves the charge which the federal government may impose on any incidental use of a facility built or paid for with funds contributed by the federal taxpayer.

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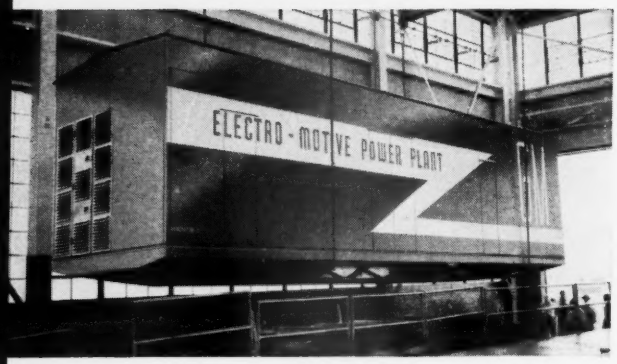
PEAKING POWER FO$10



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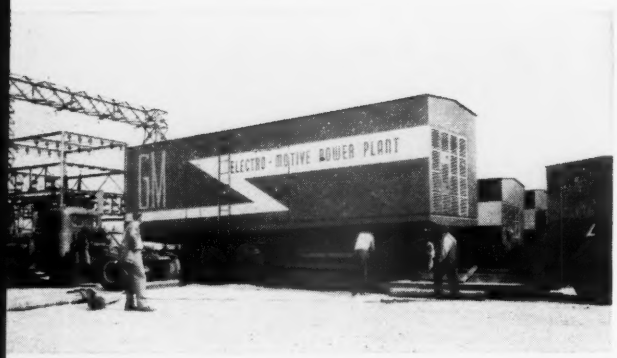

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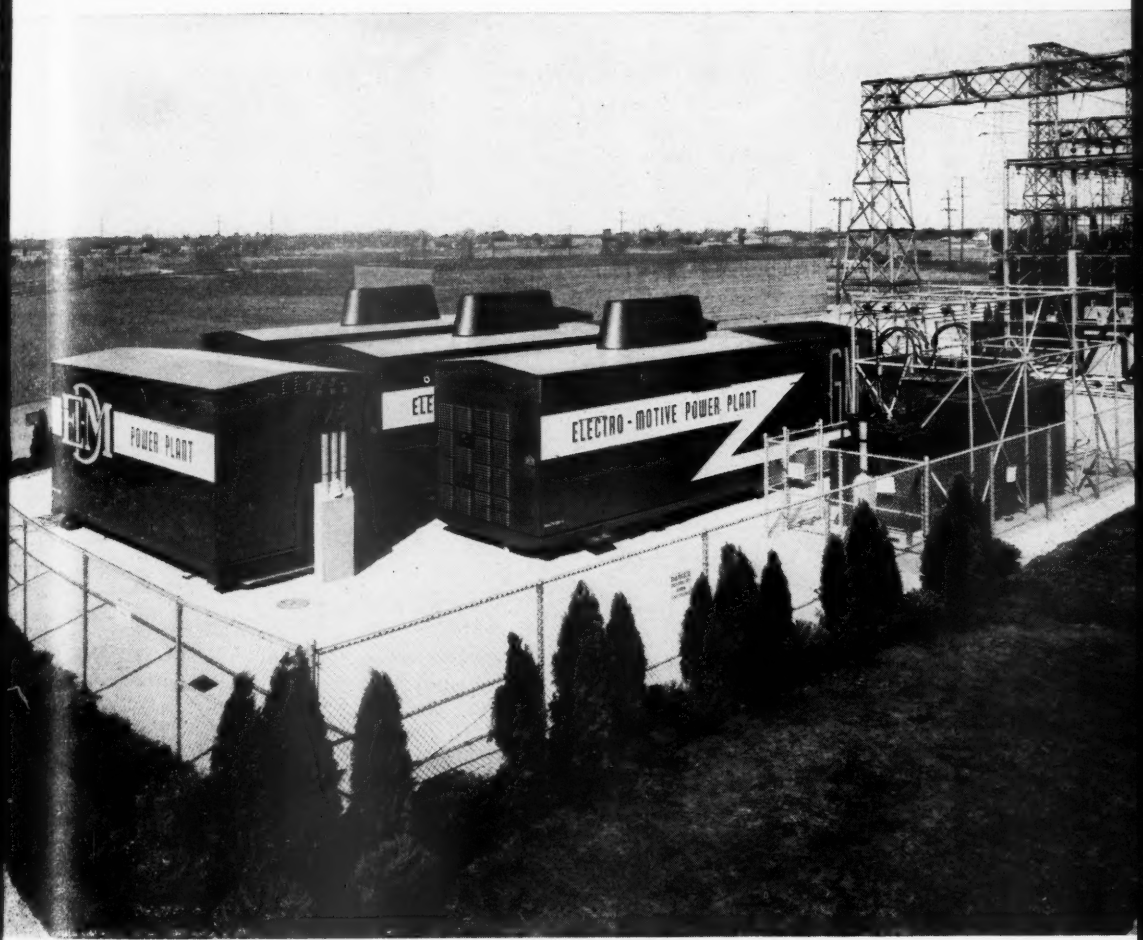

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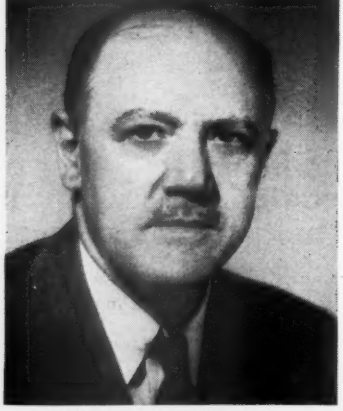
Pages with the Editors

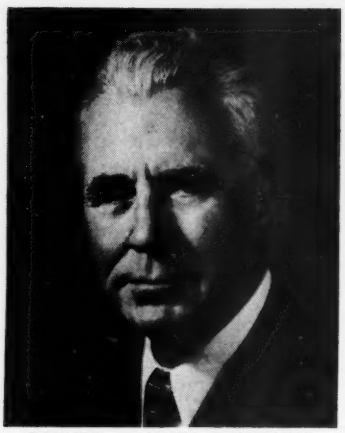
NOT long ago a questionnaire survey conducted by the editors of PUBLIC UTILITIES FORTNIGHTLY brought out the fact that public relations is the leading topic preferred by our utility executive readers. Their indicated concern in this field of activity outdistanced the runner-up subject—rate regulation—by about 35 per cent. This preoccupation of public utility management with public relations is not surprising.

IN fact, it is because of the continuing necessity for many rate cases that the public relations job is going to be more and more challenging in the future. When public utility companies find it necessary to go to the state commissions again and again for rate increases to offset steady inflation, they are going to find, at the same time, that it is more difficult to keep a favorable corporate image of the company before the public. Then too, there is the rapid expansion of our population, which is hatching millions of new utility customers every year. For each of these, the job of establishing and maintaining a favorable corporate image of the utility company is going to be a never-ending task and a most exacting one. It is that already.

ONE complication of the public relations problem is the variety of its facets. If the corporate image could be presented as a single picture for all to see, the task would be at least simplified. But the public utility serves many publics, directly or indirectly. It is even more complicated than Caesar's Gaul, which was classically divided into three parts. Years ago it was commonplace for utility people to speak of the public relations problem as being divided into three parts: the customers, the employees, and the investors. But we know today that such a three-part division would be oversimplification, indeed. There are classes of customers. There are classes of investors. There are regulatory authorities. And there is a great body of public opinion, outside of the utility company's own customers, which nevertheless has an impact on the welfare of the utility industry. The public utility company today which would try to confine its public relations efforts to its own home town or service area would have a very limited idea of the dimensions of the public relations problem.



WILLARD F. STANLEY



ROBERT HARSHA DAVIDSON

IN this issue we are presenting two articles dealing with two different facets of public relations. The first of these, the opening article, is concerned with investor relations. The author is WILLARD F. STANLEY, a native of Brooklyn, New

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York, who is now a consultant in that city on public utility financing. He is president of Corporate Services, Inc. MR. STANLEY's background for more than twenty-five years has been in financial corporate accounting and utility management.

THE second article, beginning on page 223, deals with an important "half" of the public relations job, which is sometimes overlooked. This is the "selling" side of public relations. The author is ROBERT HARSHA DAVIDSON, a native of Nebraska, who was educated at Hastings College, Nebraska, and James Millikin University at Decatur, Illinois. MR. DAVIDSON was for many years a public relations expert for one of the largest Bell system operating companies, and also a house organ editor. He has also done volunteer public relations work for a number of community organizations, including the District of Columbia Chapter of the Red Cross.

* * * *

T. N. SANDIFER, whose article on the possibility of increasing "user" charges to beneficiaries of federally financed projects appears on page 231, is a veteran Washington correspondent. For more than twenty-five years he has been writing national news, most of it from Washington bureaus of press associations. He is also a Washington columnist for several industrial and business publications, and is a member of the White House Correspondents Association.

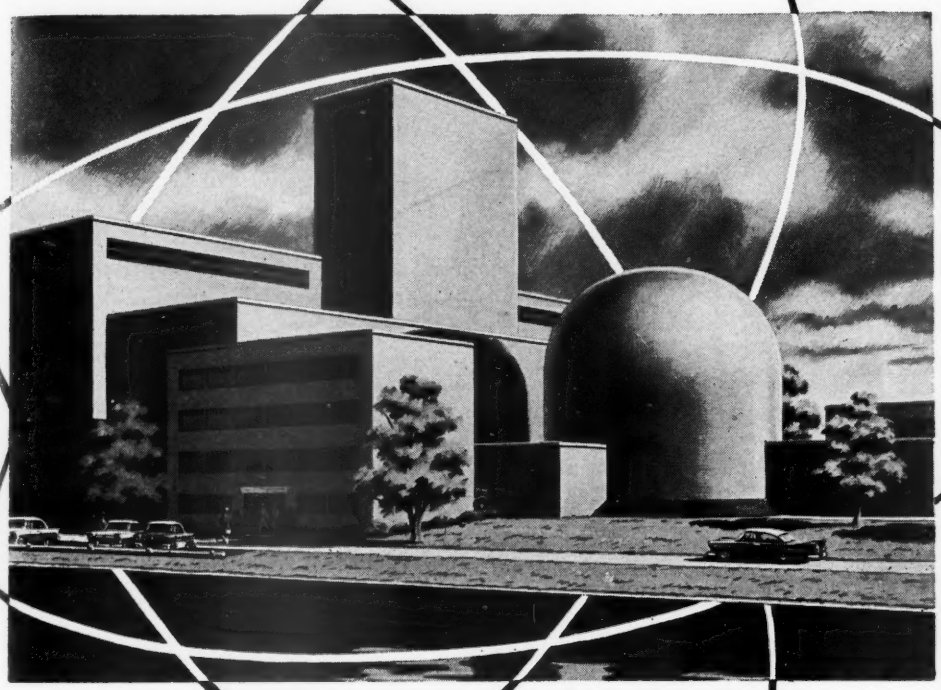
T. N. SANDIFER

OUR good friends in the electric utility business in the great metropolis of New York city have been having a bit of fun at our expense. We must confess that we deserve it. The vulnerable target was a reference which one of our authors, James H. Collins, made in the December 4, 1958, issue of PUBLIC UTILITIES FORTNIGHTLY. In an unguarded moment Mr. Collins made a statement to the effect that "New York city runs largely on DC," meaning, of course, direct current. This is quite a slip, in the light of the rapid conversion to alternating current which has been taking place, not only in the metropolitan area but on Manhattan Island, once the stronghold of direct current. In fact, we were quite surprised to realize just how rapid the changeover has been. Back in 1930 the peak load of the Consolidated Edison system was in the order of 1,212,000 kilowatts, of which 479,000 kilowatts were direct current. As of 1956 the peak load of Consolidated Edison system was 3,241,000 kilowatts, of which only 209,000 are still furnished in the form of direct current, mostly for special reasons.

THIS shows the importance of keeping up with the times. Doubtless our author, like ourselves, was bemused in thinking of bygone days when people moving in and out of downtown New York city had to be careful about the proper appliances. Radios, especially, in the early days of the "superheterodyne sets," had to be checked with utmost vigilance. Anybody who has ever had the misfortune of plugging an AC radio into a DC receptacle and watching the blue smoke mark the spot where $50 or more has just disappeared, will recall the reason for such vigilance. But that was long ago, and the fact that the remaining DC service in the New York city area is less than 7 per cent speaks well of the colossal conversion program over the past quarter-century.

THE next number of this magazine will be out February 26th.

The Editors



ENRICO FERMI ATOMIC POWER PLANT

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(February 26, 1959, issue)

★

BIG GOVERNMENT AND YOUR TAX DOLLARS

This is a very thoughtful and timely analysis by an author who was for twelve yea a United States Senator from Pennsylvania. As a lawyer and as a public servant, fo mer Senator Edward Martin, who recently retired from the upper chamber of Con gress, has been very much concerned with the trend of big government and govern ment spending, particularly in the field of electric power. He sees grave dangers i such federal agencies as the Tennessee Valley Authority are cut loose from purse-strin control of Congress—a proposal which is almost certain to be passed upon at th present session of the 86th Congress. This article presents Senator Martin's ideas o what safeguards must be kept to insure fiscal responsibility over such agencies o government operating in the field of business.

ELECTRIC RATES, BILLS, AND PUBLIC RELATIONS. PART I.

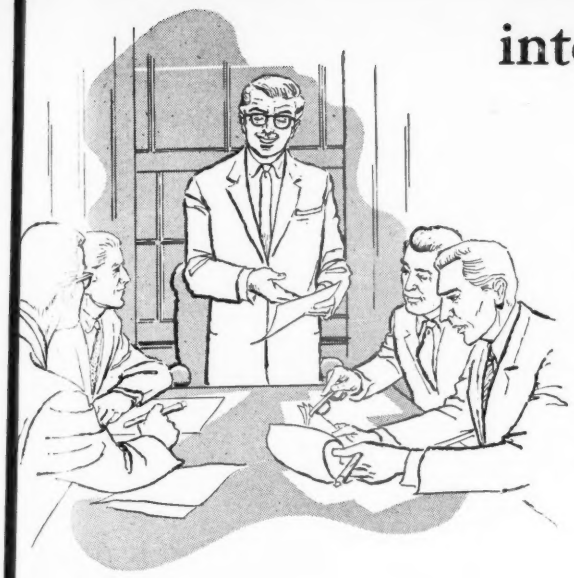
Robb M. Winsborough, vice president of the Middle West Service Company, Chicago, has written a provocative two-part article on the relationship between electric rates and public relations. He finds growing criticism of the cost of electric service, which is bound to become more expensive because of continued inflationary trends. He makes some down-to-earth suggestions, based on customer billing analysis, as to constructive steps for securing wider public acceptance and understanding of the public utility companies' problems in seeking necessary rate increases.

AMERICA IS AT THE CROSSROADS IN NUCLEAR POWER

The congressional Joint Committee on Atomic Energy last year announced a new plan for accelerating peacetime nuclear power development. What is really behind this new plan which ostensibly aims at securing a co-operative approach between the Atomic Energy Commission and private industry? Does it really mean a departure from the philosophy of the present atomic energy law, which was opposed to encouraging participation by private industry in nuclear power development? Charles D. Matthews, a Washington, D. C., consultant on public relations, has examined the program recently announced by the Joint Committee and points not only to the risks and hazards, but also to the possibility of working out a practical plan which can still be developed if the Joint Committee, AEC, and industry will pool their ideas and activities.

★

Also . . . ***Special financial news, digests, and interpretations of court and commission decisions, general news happenings, reviews, Washington gossip, and other features of interest to public utility regulators, companies, executives, financial experts, employees, investors, and others.***



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—CURZON

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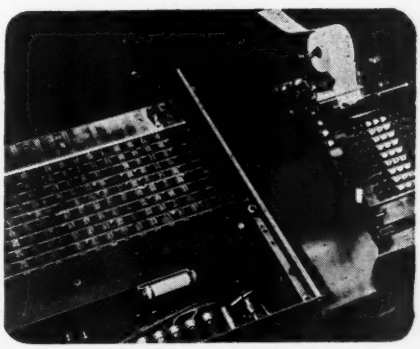

We would like to send you the complete story—a request to Dept. P-1 will bring you the booklet "THE ONE STEP METHOD OF BILL ANALYSIS"—no obligation of course.

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KENNETH S. VAUGHAN-BIRCH
Director, traffic division, Vancouver (B. C.) Engineering Department.

"[Make mass transportation] as efficient as the private automobile, with continuous service, a comfortable ride, and minimum fare. [Discourage private cars from entering congested areas] not by ordinance, but by making it more convenient to use mass transit."

EDITORIAL STATEMENT
Los Angeles Times.

"The President knows, as should every member of the 86th Congress, that inflation aided by irresponsible federal spending is as deadly as Communism. Lenin knew it and called taxation and inflation 'the vital weapon to displace the systems of free enterprise.'"

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RAYMOND MOLEY
Columnist.

"The course of true conservatism is to revive the spirit of individualism in all. All government policies, like that advocated by the Farm Bureau Federation for the farmers, should be aimed at moving toward self-help and self-reliance. There must be some intervention of government, but always aimed at its own extinction by creating the conditions by which people can provide for their own security and happiness."

ROSWELL MAGILL
Chairman, Tax Foundation, Inc.

"Congress seems to have lost effective annual control of federal spending. Until Congress moves effectively to give us a real revision of the federal tax structure, the nation is faced with the dismal choice between inflationary deficit financing and increases in an already too onerous tax burden, levied under an outmoded aggregate of taxes which can hardly be called a 'tax system.'"

KELLOGG'S PIPE SHOP FABRICATION KEEPS PACE

his complex header for the hot re-
at line, here being finished at M. W.
ellogg's Jersey City shops, is an
portant part of the power piping
r Alabama Power Company's Unit
o. 3 at Barry, Alabama. This mod-
n steam-electric plant addition in
obile County is designed for opera-
on at 2000 psi and 1000°F initial
mperature; 1000°F reheat. The tur-
ne will supply 225,000 KW.

All power piping for the unit is be-
g fabricated and erected by Kellogg,
ho will also furnish and install all
ngers, guides, anchors, supports,
d similar equipment. K-Weld®,
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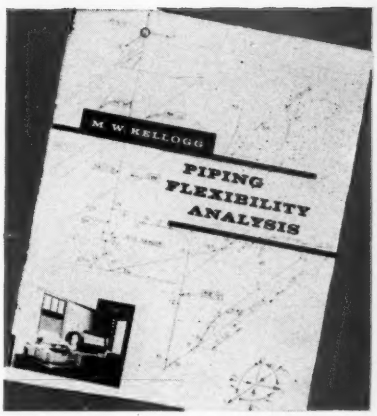
c welding technique, is being used
the main steam line and hot reheat
es, and was used in fabricating the
ader shown above.

Dimensions of the critical steam lines being fabricated of 1¼ Cr., ½ Moly. in Kellogg's Jersey City shops are: *Main Steam*—17.5″ O.D. x 2.25″ minimum wall, and 12.75″ O.D. x 1.6875″ minimum wall; *Hot Reheat*—26″ O.D. x 1.24″ minimum wall, and 16″ O.D. x 0.8025″ minimum wall.

Kellogg welcomes the opportunity to discuss its complete power piping design, fabrication, and erection facilities with consulting engineers, engineers of power generating companies, and manufacturers of boilers, turbines, and allied equipment.



This new 8-page booklet, fully describing Kellogg's electronic computer method of making piping flexibility analysis, has just been published. Write for a copy.

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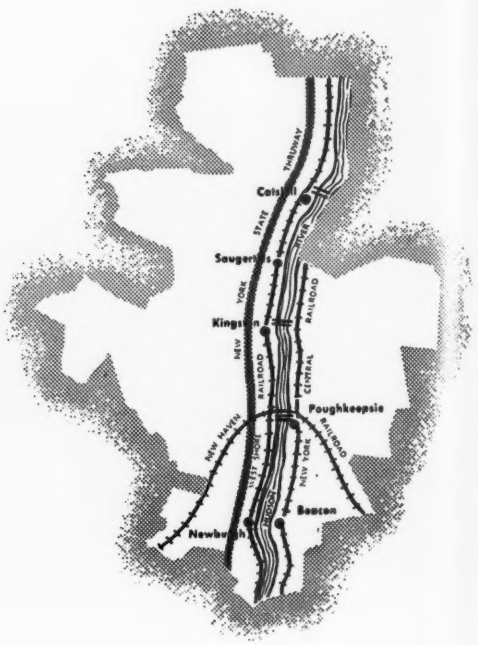

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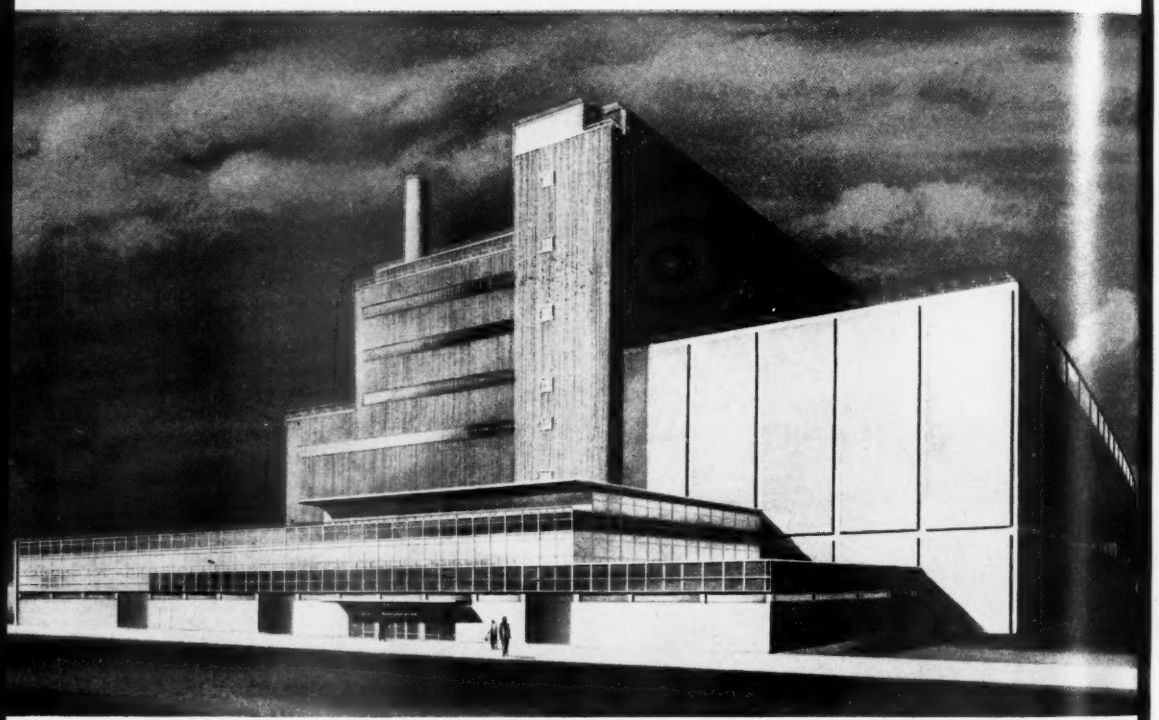
Power Station



High point of steam power progress in 1959

Now nearing completion, and scheduled for service this year, is the Eddystone Plant of Philadelphia Electric Company, which is expected to establish new standards of steam power efficiency. The initial boiler is a C-E Sulzer Monotube Steam Generator, designed to deliver steam at 5000 psi throttle pressure and 1200 F—the highest steam conditions adopted to date. It will serve a 325,000-kw turbine-generator.

COMBUSTION

Combustion Engineering Building

ALL TYPES OF STEAM GENERATING, FUEL BURNING AND RELATED EQUIPMENT; NUCLEAR

trends revealed

by C-E Boilers placed in service in 1958

A significant milestone in electric utility history was reached last year when privately-owned generating capacity passed *100,000,000* kilowatts. This happened on May 11 when the C-E-powered, 75,000-kw unit at Station No. 4, Tucson Gas, Electric Light and Power Company, went on the line.

Last year also witnessed important progress in the economy of power generation as reflected in the trends toward higher steam pressures and unit capacities. These trends are impressively revealed by the following data of C-E Boiler installations – representing a total capacity of more than 5,000,000 kw – placed in service in 1958.

TREND TO 2400 PSI

The growing trend to 2400 psi throttle pressure was highlighted by the fact that 9 C-E Boilers in this pressure range went on the line during the year. These units alone account for *1,424,000 kw*. All but two of them are of the controlled circulation design; the two exceptions are C-E Sulzer Monotube Steam Generators.

TREND TO BIG UNITS

The previously-indicated trend to really big units began to make itself felt. Two of the C-E Boilers installed in 1958 serve turbine-generators of 325,000-kw capacity, and four additional units for this capacity are on order. Also on order are two larger units – one for 340,000 kw and one for 500,000 kw. Two of the six 325,000-kw units are C-E Sulzer Boilers for *supercritical* pressures.

CONTINUING TREND TO CONTROLLED CIRCULATION

Controlled Circulation continues to enjoy widespread acceptance for high-pressure utility boilers... particularly those in the 2400-psi range. 110 C-E Controlled Circulation Boilers have thus far been purchased by domestic utilities to serve an aggregate turbine capacity of 19,752,000 kw. Of these, 67 are now in service – with a total capacity of nearly 11-million kw. An additional 23 units, with total capacity of 5,030,750 kw, have been ordered from C-E, its associates or licensees, for installations outside the United States.

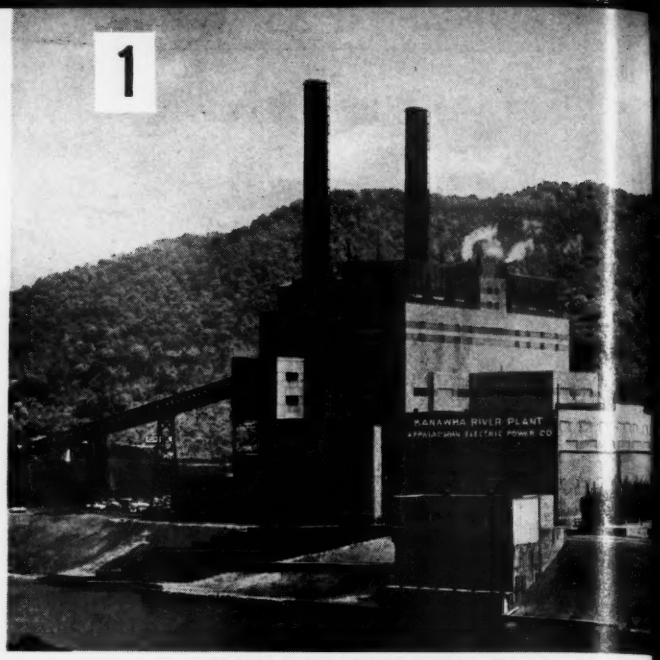
ENGINEERING

C-199

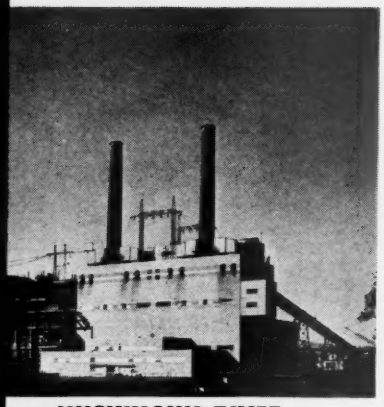
200 Madison Avenue, New York 16, N. Y.

MOST EFFICIENT HEAT RATES IN THE POWER INDUSTRY

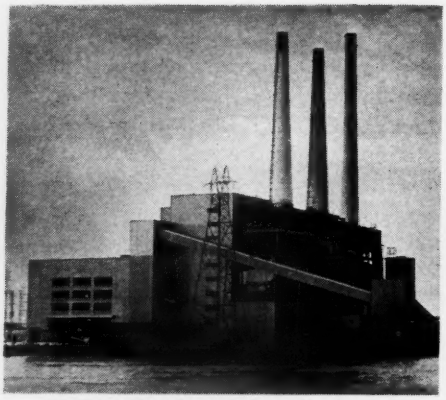
1



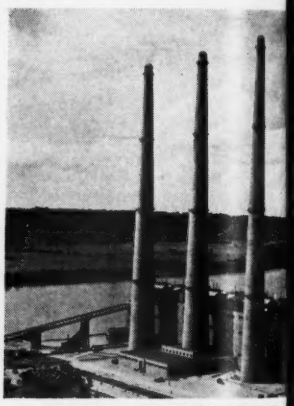
KANAWHA RIVER 9118 Btu/kwhr
Appalachian Power Co. on the American Electric Power System
Two B&W Pressure-Fired Radiant Boilers



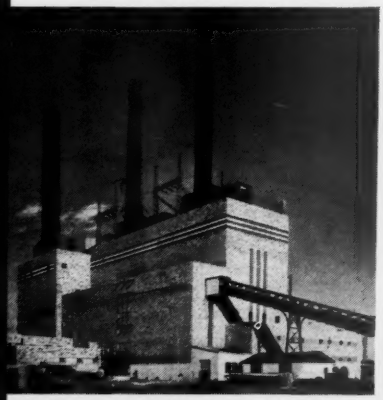
MUSKINGUM RIVER
9139 Btu/kwhr Ohio Power Co.
on the American Electric Power System
B&W Pressure-Fired Open-Pass Boilers and one Pressure-Fired Radiant Boiler



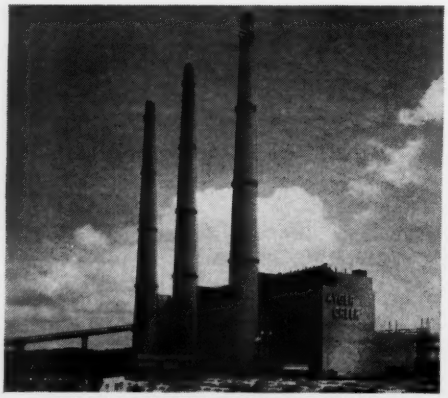
RIVER ROUGE 9140 Btu/kwhr
Detroit Edison Co.
One B&W Radiant Boiler
Firing 10% Blast Furnace Gas and 90% Coal



CLIFTY CREEK 9147 Btu
Indiana-Kentucky Electric Corp
Six B&W Pressure-Fired Open-Pa



ANNERS CREEK 9180 Btu/kwhr
Indiana & Michigan Electric Co.
Power System on the American Electric

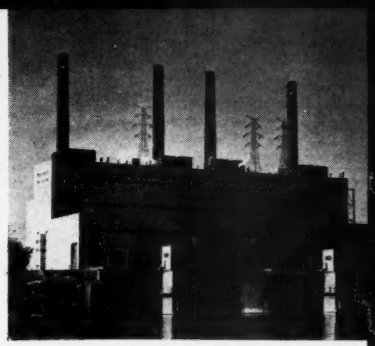


KYGER CREEK 9201 Btu/kwhr
Ohio Valley Electric Corporation*
Five B&W Pressure-Fired Open-Pass Boilers

ST. CLAIR 9210 Btu/k
Detroit Edison Co.
Four B&W Radiant Boiler

ALLEN 9349 Btu/kwhr
Duke Power Co.

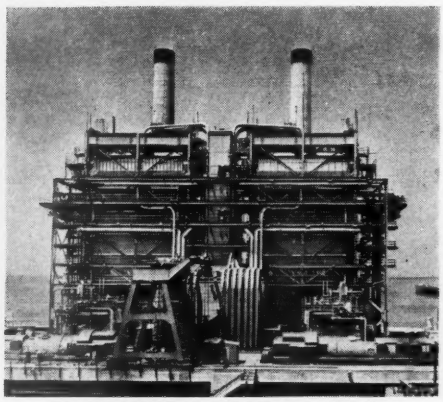
JOHN SEVIER 9350 Btu/kwhr
Tennessee Valley Authority

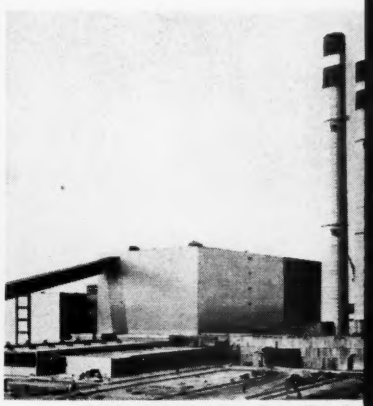


HOR[illegible] 9210 Btu/kwhr
Tole[illegible] Edison Co.
One B&W Radiant Boiler

MILLIKEN 9371 Btu/kwhr
New York State Electric & Gas Corporation

PHILIP SPORN 9370 Btu/kwh
Appalachian Power Co. and Ohio Power C[illegible]
on the American Electric Power System
Four B&W Pressure-Fired Radiant Boilers





VILLE 9396 Btu/kwhr
Pennsylvania Electric Co.
Two B&W Radiant Boilers

EL SEGUNDO 9467 Btu/kwhr
Southern California Edison Co.
One B&W Radiant Boiler

COLBERT 9470 Btu/kwhr
Tennessee Valley Authority
Four B&W Radiant Boilers

W Boilers Help Put 12 Power Plants ong Top 15 Most Efficient in Nation . .

Outstanding proof that B&W engineering developments lead the way to reliable, economical power production

f the 15 most efficient power plants in the United tates as reported by the Federal Power Commission, 2 hav[e] B&W Boilers. Why? Because B&W's major in-estme[nt] in engineering research and development has ed to great strides in power plant efficiency.

&W is working with the Power Industry to keep elec-ricity America's best bargain despite rising fuel and perating costs. Right now, B&W is investing millions of dollars in improved products—such as the Universal Pressure Boiler—in the better utilization of low grade fuels, basic metallurgical research for higher temperatures. In this way, B&W is helping America's utilities meet increased demands for abundant, economical electricity.

The Babcock & Wilcox Company, Boiler Division, Barberton, Ohio.

G-901-CS

***Ohio Valley Electric Corporation and its subsidiary, Indiana-Kentucky Electric Corporation, sponsored by these companies:**

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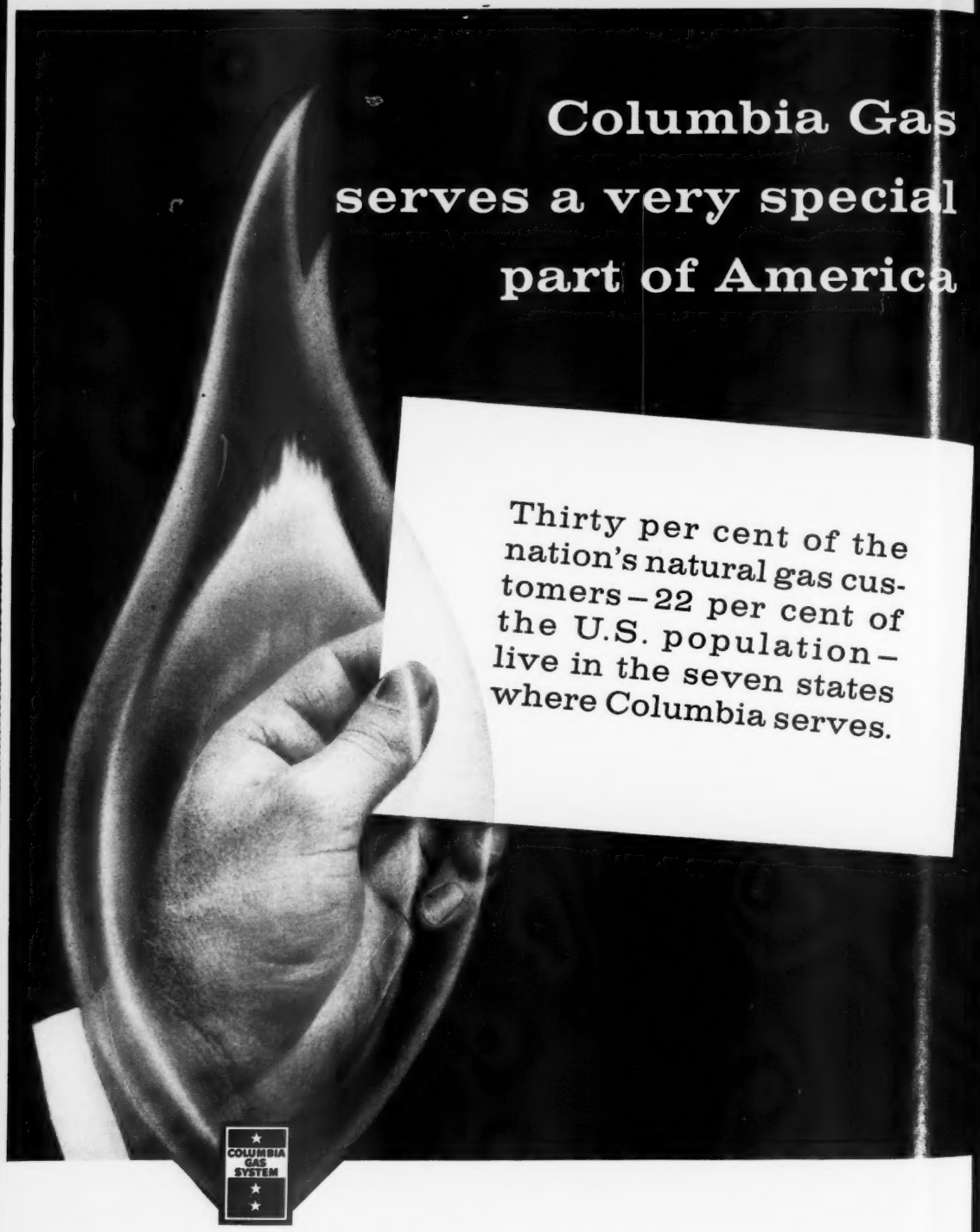
BABCOCK & WILCOX

BOILER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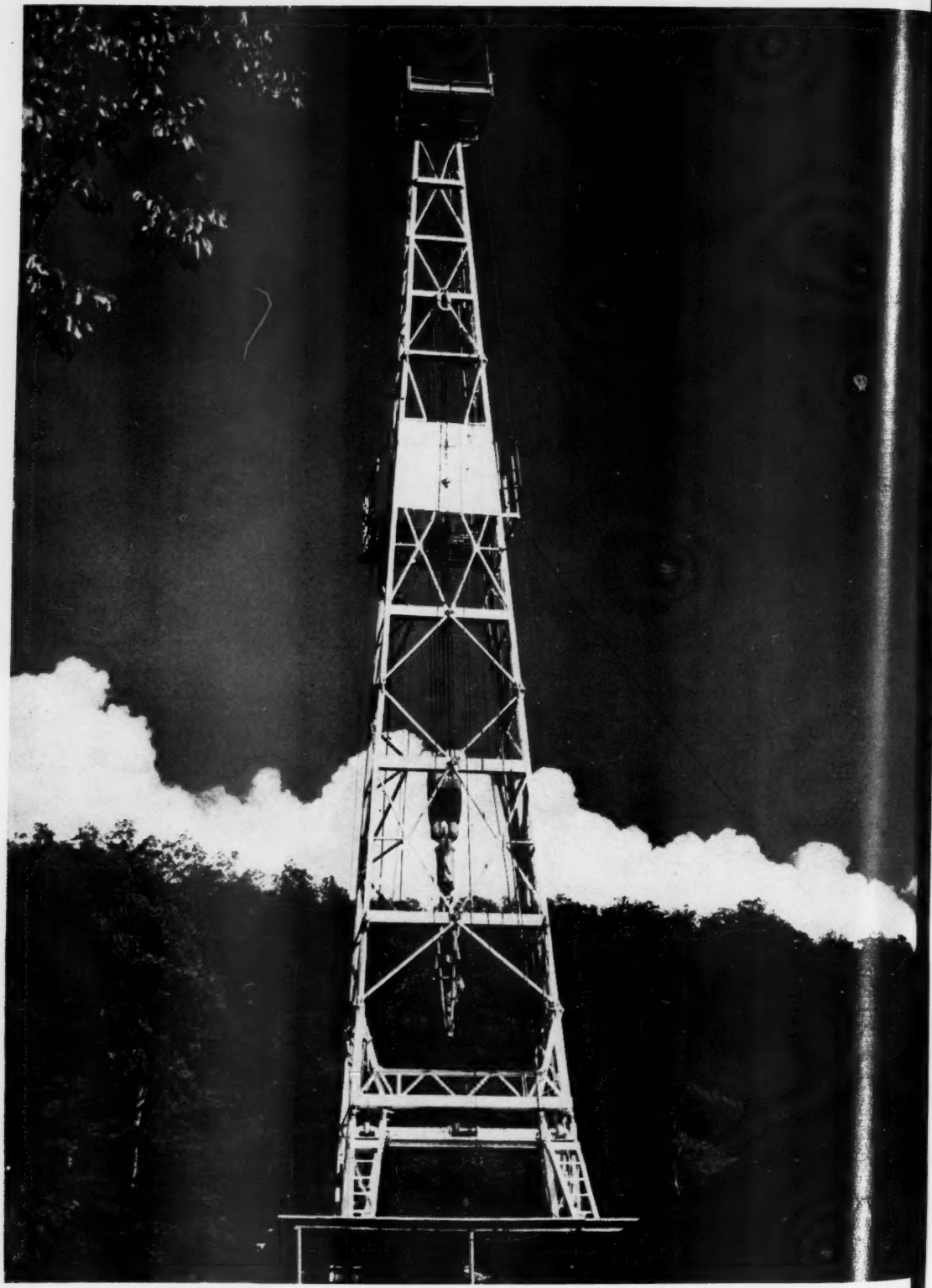
UTILITIES *A·l·m·a·n·a·c·k*

FEBRUARY

Thursday—12 *Pacific Coast Electrical Association begins business development conference, San Francisco, Cal.*	**Friday—13** *Tenth Annual Pipeline Corrosion Short Course ends, Tulsa, Okla.*	**Saturday—14** *American Gas Association, General Management Section, will hold conference, Cleveland, Ohio. Mar. 2-4.* ***Advance notice.***	**Sunday—15** *American Institute of Mining, Metallurgical, and Petroleum Engineers, Inc., begins annual meeting, San Francisco, Cal.*
Monday—16 *American Management Association begins midwinter personnel conference, Chicago, Ill.*	**Tuesday—17** *Electrical Trade Conference and Exposition begin, Washington, D. C.*	**Wednesday—18** *Minnesota Telephone Association ends four-day annual convention, Minneapolis, Minn.*	**Thursday—19** *National Society of Professional Engineers begins winter meeting, Birmingham, Ala.*
Friday—20 *American Public Power Association ends two-day engineering and operations workshop, Springfield, Ill.*	**Saturday—21** *American Petroleum Institute, Southwestern District, will hold meeting, Midland, Tex. Mar. 4-6.* ***Advance notice.***	**Sunday—22** *Mid-West Gas Association will hold annual meeting and convention, Des Moines, Iowa. Mar. 9-11.* ***Advance notice.***	**Monday—23** *American Bar Association begins midyear meeting, Chicago, Ill.*
Tuesday—24 *California* ***Municipal Utilities Association begins*** *annual conference, Berkeley, Cal.*	**Wednesday—25** *Pacific Coast Gas Association-Gas Appliance Society of Hawaii end two-day joint mid-Pacific gas merchandising conference, Honolulu, Hawaii.*	**Thursday—26** *Public Utilities Advertising Association begins regional meeting, New Haven, Conn.*	**Friday—27** ***National Wiring Sales Conference ends, New Orleans, La.***



Courtesy, United Fuel Gas Company

Bowels of Earth Plumbed More than Two Miles

Down, down this rotary rig whined, at last hitting solid granite at 9,432 feet and setting a depth record for Kentucky. Later it gyrated through subterranean matter to 11,130 feet in quest of Dame Nature's treasures of energy.

Public Utilities
FORTNIGHTLY
VOLUME 63 FEBRUARY 12, 1959 NUMBER 4

Better Investor Relations In Smaller Cities

By WILLARD F. STANLEY*

There is quite a rewarding field for cultivating dealer relations for utilities in the smaller communities. The additional advantages are obvious—a broader investor base, a sounder local or area investor relationship. Even the broader aspects of public relations can be improved in this manner.

SOMETIMES it is difficult for utility managements to realize the highly competitive nature of the market for the common stock equities of their corporations. There is considerable competition among different types of utilities, notably between gas and electricity. But, being regulated monopolies, there can be no competition as to the sale of their products in the area they serve. So it is only natural such utility industry management should not be as "competition conscious" as that in industries where the competition is not only with other kinds of products but also (and principally) with many other enterprises selling the same products in the area they serve.

It is coming to be generally understood, however, that the sale of utility common stocks is highly competitive. Today the investment dealer, in making recommendations to customers, has 200 or more siz-

*President, Corporate Services, Inc., New York, New York. For additional personal note, see "Pages with the Editors."

able, sound utility companies to choose from.

Why select one as against another? There are too many of these equities for analysts to make a detailed study of each to determine the relation of intrinsic value to market price. Security analysts can hardly be expected to dig up special advantages peculiar to each particular company. They have not the time and the company must tell them its story to command proper attention.

THIS is the job incumbent upon utility management—a job that must be well and thoroughly done to meet the keen competition which utility common stocks face in the financial markets.

Much has been done in the last twelve years in the direction of educating the financial fraternity in the large financial centers—through addresses by utility management before analyst societies and at luncheons and other meetings with investment dealers sponsored by the utilities.

Distribution of detailed statistical analyses, covering lengthy periods, has helped to give the financial fraternity a comprehensive picture of the outstanding features of the various utilities employing these tactics.

Key City Financial Contacts

BY now, personal contacts by utility managements have been developed with key members of the financial fraternities in the leading cities of the nation, such as New York, Chicago, Philadelphia, Boston, and St. Louis. Even in what might be termed the second tier of communities, such contacts have become fairly common. Included in this category are such places as Los Angeles, Cleveland, Buffalo, Minneapolis, Milwaukee, Hartford, and New Haven, to name a few.

This type of contact has now become so general, in the larger cities, that utilities can no longer hope to obtain the more or less exclusive advantages which inured to the benefit of the first group of companies originally employing such programs. Much of the earlier curiosity and enthusiasm of the financial fraternity has subsided, as a result of repeated periodic meetings with these utility managements. But the continuance of luncheon and other types of meetings by utilities which may have already often told their story, still remains important in the large communities.

It is generally regarded as a modern necessity to maintain good financial relations. Continued good will of the investment dealers and their analysts is as indispensable as ever.

THE case is analogous to that of commercial advertisers who already have made the public familiar with their products but dare not cease advertising, for fear that demand for their products will decline unless the products are kept continually in the public eye. Much of the work now being done by leading utilities in the areas of the large cities is, therefore, required just to retain their competitive position in the equity markets. Yet this work is now fundamentally of a defensive nature.

The financial fraternity in the large cities has thus come to be made aware of the problems and affairs generally of a substantial part of the utility industry.

A 2 Per Cent Increment in Equity Sales Deemed Likely

"BY bringing its common stock to the attention of these investment dealers and their analysts and salesmen, through the visit of a company representative, the utility sponsoring such a program might reasonably anticipate (if its prospects and situation are favorable) to induce those so contacted to persuade their customers to invest, on the average, an additional 2 per cent of the total $450,000 utility investment per year per average firm in the common stock of the particular utility. This seems a modest increment in sales of the company's equity, considering that the particular investment house may not have sold any of such company's stock before and that enthusiasm of salesmen should be strongly stimulated by meeting and hearing the company's story personally from a representative of the company—something probably unique in his experience up to that date."

Cultivating Smaller Communities

BUT one portion of the field of financial relations still lies fallow, for development by progressive utility management. That is the field embraced in the smaller communities throughout the U. S. A., where management has not considered elaborate meetings or visits from top-flight utility officials to be warranted. Nevertheless, each of these smaller communities is likely to contain several active investment dealers with customers having a combined country-wide investing power of great magnitude. Granted the same techniques are not justified in these smaller places. This does not mean, however, that they should be completely neglected.

Arousing the interest of the financial fraternity in these smaller communities should prove well worth while. This could be accomplished effectively, not by the more elaborate and expensive type of presentation employed in the large centers, but by having an able and experienced representative of the utility bring its common stock to the attention of the investment dealers and others interested by a personal visit to these communities as a part of a "swing round the circuit," embracing a considerable number of such

communities in the same general area.

Such a company representative could reasonably expect to visit, effectively, at least three of these smaller communities a week. That would make a total of about 150 a year. Assuming an average of four investment dealers in each community, with a sufficient following to make their interest important, this would add up to about 600 investment dealers who could be contacted annually. Instead of limiting contact to a single meeting with all the financial fraternity (customary practice in the large financial centers), the company representative could personalize his contacts by meeting separately with the partners, analysts, and salesmen of each investment dealer firm, thus getting his story home at firsthand to the people who will do the actual selling. If the extent of banking, insurance, and other general financial interests in the community warranted, these could be handled at a general luncheon meeting which the company representative would sponsor.

If it is assumed an average active investment house in this type of community does minimum gross business in the sale of common stock equities of around $2 million a year, the portion of this business comprising utility equities might be roughly estimated at 30 per cent, or $600,000. Most of these firms are not stock exchange members, and, accordingly not limited to stock exchange commissions, so it is probable that the bulk of their profit is derived from the sale of equities to their customers, rather than from purchases from their customers—often made on a commission basis. In the case of utilities, profits from sales to customers might reasonably be estimated at 75 per cent of the total business, or $450,000 a year.

Sales Potential Good

By bringing its common stock to the attention of these investment dealers and their analysts and salesmen, through the visit of a company representative, the utility sponsoring such a program might reasonably anticipate (if its prospects and situation are favorable) to induce those so contacted to persuade their customers to invest, on the average, an additional 2 per cent of the total $450,000 utility investment per year per average firm in the common stock of the particular utility. This seems a modest increment in sales of the company's equity, considering that the particular investment house may not have sold any of such company's stock before and that enthusiasm of salesmen should be strongly stimulated by meeting and hearing the company's story personally from a representative of the company—something probably unique in his experience up to that date.

Based on this estimate additional purchases of the stock should run about $9,000 per firm, or a total of $5.4 million annually for the 600 firms assumed to be so visited during a year.

Let us assume the average utility embarking on such a program has assets of about $400 million, with 35 per cent thereof in common stock equity, and a market value for its common about 30 per cent above this book value. Under these circumstances total common stock market value would approximate $180 million. A reasonable annual turnover in the stock from trading in the market might be about 15 per cent or in the neighborhood of $27 million. On this basis the additional $5.4

million of estimated additional investment in the stock by reason of this new program would represent 20 per cent of annual turnover—obviously sufficient to exercise an important favorable influence on the market price for the stock.

Stockholders and Company Benefit

THEREFORE, such a program, if successful, should substantially benefit the company's stockholders by legitimately increasing the market value of their holdings. The percentage of increased value is debatable, but a very rough "guestimate" of 5 per cent would seem well within reason as a minimum. This minimum increase in value would represent an additional $9 million of net worth to the combined holdings of the stockholders.

The benefit of such a program would not be confined to stockholder values, but would extend to a savings in cost of equity money to the utility company. Let us assume the typical utility sponsoring the campaign expands at an annual rate of 7½ per cent, with construction expenditures around $30 million a year. Of this figure it is reasonable to expect one-third would be supplied by depreciation and amortization cash (less cash used to meet sinking funds). The balance of $20 million would have to be furnished by increased capitalization.

On the assumption the company has a 35 per cent common stock equity ratio, $7 million of the new funds should be derived from this source. If the company is estimated to earn 12 per cent on the book value of its common stock equity, or about $17 million a year, the portion of these earnings retained would be about $4.5 million a year, with a 73 per cent common stock dividend pay-out—about the average for the electric utility industry. After applying these retained earnings toward the common stock requirement for new capitalization, there would be left $2.5 million a year to be raised through sale of additional common stock.

IF the 5 per cent assumed increase in market price of the common stock is applied to the last-mentioned figure, a saving of $125,000 a year would result, by reason of the company's campaign among the investment fraternity in the smaller communities.

The campaign, if successful, would probably be continued in effect for a number of years, with consequent cumulative benefits. But even if the benefit were limited to the enhancement in market value resulting from the first year of the campaign, total direct benefits to the utility through the sale of additional common stock at higher prices should run well over $600,000 for a five-year period. Our typical utility may not find it necessary to offer additional shares each year; but to maintain its common stock equity ratio at the percentage indicated above, it would be necessary, at convenient intervals, to sell additional common stock sufficient to create an aggregate saving of the above amount, with an assumed 5 per cent increase in market value.

Results Long Lasting

IT should be borne in mind that the greater part of the increase in market value resulting from the initial campaign should constitute a continuing benefit to stockholders and the company. This does

not mean, of course, that the market price would remain constant. But whether market value rose or fell the company could be expected to maintain the favorable differential because of the additional investments promoted by the program. Once the salesman of the investment house in the small community became "sold" on the stock, it is reasonable to suppose he would continue to recommend it for a protracted period.

Estimating the annual compensation and expenses of such a company representative as in the range of between $20,000 and $30,000 per annum, the benefit to the company as indicated above (excluding benefits to stockholders) should exceed five times the median estimated expense to the company; *i.e.*, savings of $125,000 per annum as compared with expense of $25,000.

If a cumulative increase in market value is assumed from continuation of the campaign, the benefits to the company could rise, during a five-year period, to many more times the expense involved.

RESPONSE of the financial fraternity in smaller communities should be far more enthusiastic and effective in proportion to their size than is now obtainable in the larger cities. The investment community and financial press are likely to feel complimented that the utility should single out that community for the telling of its story. As a result, publicity relative to the visit of the utility representative (including publicity as to any luncheon or other meetings sponsored by him) is likely to obtain front-page prominence and thus be read by most of the city's investing public. In the larger cities the story will be relegated to the financial page (if reported at all), with consequent limitation of readership.

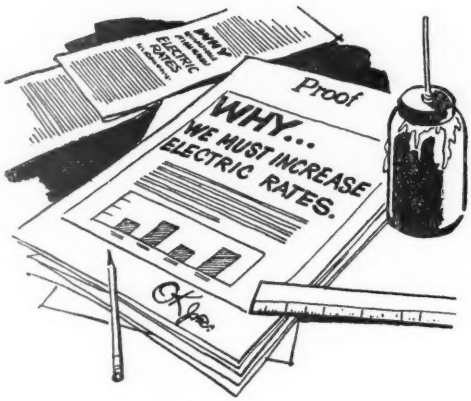
Two factors stand out as worthy of particular consideration, in formulating such a program:

First: Maximum benefit from the program is likely to be derived by utilities which first put such a campaign into effect. After a substantial number of companies have made contacts with the smaller communities, it is reasonable to expect that, following the trends experienced in the larger financial centers, some diminution of enthusiasm may occur. This indicates that it is advisable that utilities favorably considering such a program act promptly to put it into effect. However, the situation differs in degree from that in the relatively few big cities, since the number of smaller communities where the campaign could be presented can extend into the thousands, thus materially lessening the chances of their being approached by many utilities in a short period of time.

Second: Since the greater part of the investment dealers contacted in the smaller communities will not be members of a stock exchange, these firms will prefer to promote sales of common stocks which are unlisted. That is because in these cases their profit will be greater. Accordingly, the program should operate most effectively for utilities whose common stocks are not listed on a stock exchange.

The Selling Side Of Public Relations

By ROBERT HARSHA DAVIDSON*



Doing a good job for the public service is only half of the responsibility for establishing and maintaining good public relations. All public utility company specialists in this line are well aware by this time that telling the public about it, or at least seeing that the public knows about it, is the important other "half" of the responsibility.

THERE have been many attempts to define the public relations job. Most of these definitions fall short of the purpose because the subject has so many facets. It is often described as a modern version of the Golden Rule. This, in my opinion, is pretty good defining. Pared down to the nub, however, public relations is mainly doing a good job and letting the public know about it. There is plenty of precedent for this concept, as far back as 2,000 years ago. "Go ye into all the world and spread the glad tidings," was uttered long before the term public relations was ever thought of, and so was the familiar admonition not to hide one's light under a bushel.

The old saw that asserts that, if you build a better mouse trap than anyone else, the world will beat a path to your door, may have been good stuff long ago when it was written, but I doubt it. It is true that men in certain professions, owing to their strict code of ethics, must rely on general recognition of their ability to do

*For personal note, see "Pages with the Editors."

a good job and "let nature take its course." They must build their good reputations solely on performance and the word-of-mouth blessing of their clients and patients. Most often it is a long and slow process and I imagine many a good professional man never reaches his potential. Certainly many businesses have died on the vine trying to follow such a plan.

Thus "telling the world about it" must not be confused with just bragging, although some of our national advertising, particularly, comes mighty close to it. It is rather an expression of a firm confidence in its product or service. Naturally those responsible for such a product or service have a right to solicit the public for their share of the business. This is done through advertising, propaganda, and the medium of public relations. Advertising sells merchandise or service, propaganda sells ideas, and public relations sells ideals.

Various Information Media

ADVERTISING is mainly concerned with impressing potential purchasers with the quality and the fairness of price of the product or service and creating a desire to buy such a product or service in preference to any other. The manner in which this is done can result either in good or bad public relations. Too often an advertiser goes so "hog wild" with catch phrases and clever slogans, composed in ivory towers, that the intelligence of the thinking public may be actually insulted rather than impressed. Nevertheless, it is an accepted idea these days, that in a highly competitive market a steady and continuing advertising program is imperative. While we recognize that the general theme of the advertising story can be changed but little, it is also recognized that the same old commercial on television or radio, repeated over and over, day after day, and week after week may result in bad public relations, far overbalancing any sales value resulting from this kind of repetition.

One wonders sometimes whether advertisers really strive to find the balance point, where the selling value of a commercial is canceled by slowly built-up resentment because of its constant repetition, or whether they merely assume that constant repetition of the brand name is sufficient to support the selling value.

Propaganda, too often, is a misused term. According to the dictionary, among other good things it is defined as "the spreading of information." Its place in this triumvirate of advertising, propaganda, and public relations, is exactly that. Most large companies and industries have come to realize that the spreading of information about the facilities, the operation, and the conduct of their businesses is one of the finest possible means of creating good public relations. This is done in many ways.

Graphic Methods

THE use of attractive literature in telling the company story with an absolute minimum of advertising is an excellent example of how to create good public relations. More and more large corporations have been dressing up their annual reports to the stockholders without lessening the prime purpose of the report to inform the stockholder of the company's fiscal condition and the accomplishments of its management and the progress of its operating practices. This sort of literature is, of course, pointed di-

rectly to the owners and prospective owners of the business. There is, however, a fertile field for nontechnical brochures which show in interesting stories and pictures how a company operates; how products or services are produced; the modern equipment used; the welfare programs for employees; and many other interest-provoking features that are enthusiastically read and appreciated not only by present customers, but by the general public as well.

Good Speakers Wield Influence

ANOTHER excellent means of disseminating information is by talks or lectures before the many varieties of civic groups and businessmen's clubs that are always glad to get interesting speakers. Church and school groups are also fertile fields for this sort of activity. However, in many companies there is plenty of room for improvement in this activity. Too often a company will "send a boy to do a man's job." Almost all of these groups would take a special pride in welcoming a top executive of a company as a speaker, which in itself would be a source of fostering good public relations. Yet so many companies leave the job to someone on a low managerial level who delivers a canned talk which he probably had no part in writing. Sometimes he is a member of the particular organization to which he is speaking. If he is a really good speaker, this may be all to the good, but it is well to remember the old adage that "a prophet is not without honor, save in his own country."

This business of sending out to speaking engagements untrained and ineffective speakers is a good deal like a concert bureau assigning an untrained singer or musician to give expression to a difficult opera aria or intricate concerto. One can imagine the public reaction. This job really calls for well-trained speakers or, if possible, high-level executives. A combination of both, of course, would be the ideal.

It is well to recognize that just because a man is a top executive is no particular reason why he should be a trained speaker. Nevertheless, if he is really a capable executive it seems logical that he should know his company's policies backward and forward; he should know a great deal about the history of his company as well as many interesting and informative facts about the operation and conduct of the business. In fact, trained speaker or not, he should be a man conversant with his subject. A man who knows his subject can almost always talk in an interesting and entertaining fashion.

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¶ "MOST public utility companies now have well-established public relations offices, headed by a high-level official of the company. It certainly seems logical that this official should be chosen for the job in the same manner that a chief engineer or a chief accountant or a plant manager is chosen—because he is considered an expert in his field. Unfortunately, in some cases this policy is not followed, and the job is dropped in the lap of some official who can be spared for the job but whose previous experience in the conduct of public relations is practically nil."

Now we know that a top executive has many demands on his time. The higher one gets in an organization the more the pressure increases. The responsibilities are heavy ones. Often the pace is terrific. Yet it seems reasonable to assume that there are times when one can forsake one's deep leather chair and take over as the featured speaker at some medium-sized civic group or businessmen's organization. The public relations value redounds not only to the company but also to the company member of the organization, who gets the credit for bringing the big boss to his group.

Some big national organizations have established definite programs, with thoroughly trained speakers whose main job in life is going about the country and making interesting and entertaining talks on their industry before many large and small public and civic groups. It must pay off in good public relations or it would not be continued on such a large scale.

Motion Pictures Effective

Another good example of the use of propaganda in circulating information about a company or industry is in the use of motion pictures, which can be both entertaining and interesting as well as informative to the general public. Years ago, when this sort of activity was first begun, some of the results were pretty sad because of the amateurish manner in which they were made and the lack of imagination in preparing the plots. Today a whole industry has been built up for the primary purpose of making industrial movies. As a result, there is a real and growing demand for these movies on the part of clubs, lodges, churches, schools, and the many varieties of business and civic groups. Many large business organizations and industries recognize this demand by producing amazingly interesting and entertaining movies about their companies' operations and accomplishments. To my mind this is public relations of a very high order, both with respect to the general public and to the company's employees, as well.

In the spreading of information by talks and motion pictures, a few of our largest industries and manufacturers have gone a step farther than most by combining these two media in their television commercials to such an extent that millions of viewers find almost as much interest and entertainment in the information supplied as in the sponsor's program.

Informing the public, important as it is, is by no means the whole job of creating good public relations. There are many facets to this highly important adjunct to every type of business venture. There are many so-called public relations counselors and public relations firms which offer their services for many kinds of promotional ventures. However, it is the purpose here to concern ourselves, so far as possible, with public relations applied to the public utilities field.

Employees Aid Public Relations

First of all, good public relations starts right at home base. Its activities are not confined to the four walls of a public relations office. Every employee, high or low in the organization, whether his work deals directly or indirectly with the public, has a vital part to play in this activity. This means, of course, that the employee should be well-informed about the company; should be satisfied with the conditions

under which he works; and that his first loyalty should be to his company. To achieve this happy state of affairs is the constant and continuing job of management.

Every employee who becomes an ambassador of good will, either in connection with the job or in his social contacts, is a distinct asset in creating good public relations. Efficiency in his work, unfailing courtesy to all customers, and a consuming desire to be helpful in every way possible are the ingredients that make employee participation in the public relations program so successful. Across the counter, across the desk, in homes and places of business, over the telephone, wherever the employee meets the public, his company stands before the bar of public opinion. Thus it is clearly apparent that a company has a vital public relations job to do right within its own family.

Public Relations a Profession

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Top Brass or Trained Speakers Should Make Speeches

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A TOP-GRADE public relations officer's advice (if heeded) may often save his company some pretty bad headaches, whereas with an incompetent public relations officer the reverse is more likely to be true.

The medical profession lays great stress on preventive medicine. Most doctors prefer to keep an eye out for danger signals and lick an illness before it gets started, rather than wait until serious trouble develops. It follows, then, that one of the main jobs of the public relations officer and his staff is to be alert for the danger signals that give warning of possible customer or public attitudes that might develop into bad public relations. This is no job for an amateur. It is the job for a real professional, who has the imagination and the perspective to apply the corrective measures to keep his public healthy in good opinions toward his company. The old medicine man approach, with a nostrum or elixir guaranteed to cure anything from sore feet to brain tumors, has no place in a public relations office. There is no cure-all in the public relations medicine chest. The only one thing that comes near it is to see to it that a company does a good job and renders a good service at a reasonable cost. But, unfortunately, this is not enough.

Community Participation Vital

IN any discussion of public relations we are talking to a large extent about human relations. In this sense a public utility really takes on the aspect of a person. It is regarded as a citizen of the community it serves and, as such, should take an active part in community affairs. Almost all companies now sponsor employees and officials as members in all worth-while businessmen's clubs and civic groups. They take an active part in community-wide programs of various kinds. The officials, particularly, will be found as leaders in community drives, such as United Givers Fund, Red Cross, and other worthy charities. Often officials will be found on bank boards and other large business organizations' boards. Many officials and employees alike are active in church work and often are on the governing bodies of the churches of their choice. In fact, the public utility in its personified sense is actually a neighbor. It seems unnecessary to discuss the attributes of a good neighbor. Some of the things we have already discussed in regard to a public utility's community activities.

There is one phase of being a good neighbor where almost all utilities are doing an excellent job. Where substations and central offices are located in residential areas, it is the common practice now to have the architecture of the company's building conform so far as possible with the architecture of the homes in the area. The grounds of these buildings are almost always neatly kept and it is sometimes difficult to discover that the building is not really a residence. This leads to the observation that the beauty of architecture and the neatness with which a public util-

ity's building is kept inside and out, no matter how large or small the structure is, is also the mark of a good neighbor. The comfort, convenience, and pleasantness of the surroundings in the public offices of a company, where customers come to pay their bills or discuss their service, are also very important in creating good public relations.

ANOTHER evidence of being a good neighbor is for a utility to spread as much of its patronage as possible among the local dealers. It is recognized, of course, that a great deal of a utility's purchases must of necessity be made with outside firms, but there is still much that could be bought locally and every utility should take full advantage of this practice. Your other neighbors buy locally for the most part, so why not you?

Still on the good neighbor policy, I would like to mention two examples where a couple of utility companies exercised rare imagination in good neighbor relations. One company, in a community where no swimming facilities were available, constructed a swimming pool for the youngsters of the community. In addition it supplied the youngsters with "T" shirts putting the company's name on the back at a cost of only a few cents an item. One can imagine the public relations value of the pool and shirts in terms of good will created in the community. The cost of this entire project was not treated as an operating expense either, but was paid for out of the company's surplus.

Another example of good neighborliness was occasioned when a company was alert enough to notice that drinking fountains in the community all seemed to be for grownups. It was decided to do something about it. As a result, a little tots' drinking fountain was put in operation in front of the company's main building and proved a popular and convenient spot for the ever-thirsty youngsters who one day will be the company's customers.

Public Helps Try Rate Cases

EARLIER we mentioned the "bar of public opinion." Never does this factor become more important than when a utility company is applying for a rate increase. If a company has maintained good public relations by every means possible, it has little to fear. Almost everybody has experienced the pinch of higher costs for practically everything we buy. If a company has been alert, it has kept its customers advised about the increase of its

¶ "IF a company has maintained good public relations by every means possible, it has little to fear [from a rate increase]. . . . If a company has been alert, it has kept its customers advised about the increase of its cost for labor, material, and equipment. The public is well aware that dealers and manufacturers can meet these rising costs simply by raising prices. It also is aware that a utility company can only seek relief through the medium of public service commissions or some governing body legally acting as such, and, occasionally, the courts. However, it is still necessary to see to it that the public is kept fully informed of the company's viewpoint throughout the progress of a rate case. . . . it is well to remember that every rate case is being tried before two tribunals—the public service commission and the bar of public opinion."

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However, it is still necessary to see to it that the public is kept fully informed of the company's viewpoint throughout the progress of a rate case. The old saying, "We do not want to try our case in the newspapers," has still considerable validity.

But it is well to remember that every rate case is being tried before two tribunals—the public service commission and the bar of public opinion. It is quite possible to win the case before one tribunal and lose it before the other. It is, of course, of the utmost importance to win the case before the commission, but it is an invaluable asset to have the public with you in the winning.

Good "PR" Practices

AFTER a public utility has notified its public service commission, either officially or informally, of its intention to file a petition for rate relief, many companies have found it extremely helpful to arrange high-level interviews with newspaper editors, business executives, and the governing bodies of civic groups. In such meetings it can acquaint them fully with the company's viewpoint and the reasons that have made it necessary to appeal for an increase in rates. It has also proved of great benefit to discuss the proposed increase in terms of the small increase that would accrue in customers' monthly bills, rather than mentioning the total amount asked for. This should also be emphasized in the company's press releases during the course of the hearings.

PROPER newspaper coverage during the course of a rate hearing is absolutely essential in order to win approval at the bar of public opinion. This activity was discussed at some length in "Good Press Relations Techniques," which appeared in the July 3rd issue of PUBLIC UTILITIES FORTNIGHTLY.[1] Suffice it to emphasize the necessity for the close co-operation of the press relations man with his company officers and legal staff in seeing to it that newsmen covering the hearings are supplied promptly with copies of the testimony being presented, together with adequate summaries and that both legal staff and company officers, as well as witnesses, are at all times available for questioning by the press.

Finally, it was stated at the outset of this article that the subject of public relations has many facets. Some of these facets have been discussed at considerable length. But boiled down to its essence, good public relations is really achieved through the simple process of getting people to like the things you stand for.

[1] "Good Press Relations Techniques," by Robert Harsha Davidson. PUBLIC UTILITIES FORTNIGHTLY, Vol. 62, No. 1, July 3, 1958, p. 12.

Higher Charges for Federal Services?

By T. N. SANDIFER*

During the 1958 session of the 85th Congress, a comparatively new phase made its appearance in discussions about the relationship of federal spending to local area responsibility. The new phrase was "user charges." This involves the charge which the federal government may impose on any incidental use of a facility built or paid for with funds contributed by the federal taxpayer. The application is very broad—the use of highways by motorists, the use of rights of way by utility companies, billboard advertisers, and such old-line and well-recognized uses as reclamation, navigation, and other local benefits are involved in the term.

A NEW term in federal jargon recalls an old vaudeville act. In it an animal trainer would suddenly exclaim "Frank Buck," at which his performing monkey would duck violently and bat defensively at the air with his paws.

The new federal term is "user charges" and every time it crops up in a federal agency report, public power factions give a collective version of the animal trainer's monkey, but with more noise. It is heard more and more frequently so you can expect to see the idea under violent attack from now on, especially since the recent congressional elections sent back substantial reinforcements for the power and reclamation blocs that cluster around Washington. It already has been fired on by these forces.

While the administration made a rather definite attempt to get the policy well started during the 85th Congress, it gained only limited headway. It can be claimed, nevertheless, that it is definitely established, and not solely because postal

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patrons are paying increased charges.

The administration, in seasonable language, did essay a certain amount of broken field running with the Hoover report, which is the most recent advocate of a more realistic cost-price approach on public projects.

So, we find the commercial air transportation industry paying higher user charges. Motorists using the new federal interstate highway already are familiar with the policy because they are paying. About the time the administration sprung the idea of higher federal rates for its services, the Budget Bureau was put to work on a long-range study of federal transportation policy.

Among others, this study admittedly is aimed at determining what if any new charges should be laid on such users as the commercial barge lines, the rails, and others. It is still just a study in progress with no published report, but its implications are not lost on any of the industries concerned. Least of all are they lost on public power groups. Simply by the line of its defense, public power has long ago acknowledged its vulnerability to the challenge of who really pays for it.

Public Power Booby Trapped

In a way, public power factions unwittingly booby trapped themselves in the present situation. In their enthusiasm during the past lush decades, they have insisted on being a part of nearly every type of federal project that came along. Reclamation, navigation, flood control—it is hard to mention a major heading of publicly financed enterprise that does not have a public power angle.

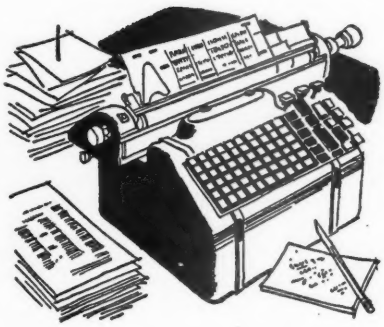
Obviously they did not foresee that the Hoover Commission would come up with a recommended administrative policy that, by design or not, put them squarely into the pattern which would make public power, with the others, pay its way by realistic commercial standards.

This recommendation held, as a basic principle, that there can be no separate treatment with respect to any of the major federal activities—federal and national transportation, which by definition would include, besides highways, a "closely related navigation policy" and "federal and national policy on developing energy from all sources, upon which federal policy in hydroelectric energy has an important bearing regionally."

Further on, the report specially mentioned as part of the navigation phase, such projects as the Warrior-Tombigbee and others. Since public power is almost inextricably involved in many of these projects, it seems a fair interpolation that if the autoist can be made to pay, if the commercial airlines are made to pay, if the inland waterway users are made to pay, all under a new federal concept of recovering at least a fair measure of the costs involved — public power will have difficulty eventually in dodging it.

Say They Pay Their Way

The principle is accepted publicly by reclamation interests. It is their most frequent boast that reclamation not only pays, but pays and pays. There are arguments the other way, on this point, which have somewhat more tangible grounds than some of the reclamation claims, but there it is. Reclamation says it pays, and is proud of it.



Headache for Public Power Enthusiasts?

"THE developing administrative approach that all federal projects should bear a reasonable share of their cost can well take its departure from the computations of the Hoover group, which in the light of today's taxes and today's accelerated costs, can be expanded . . . There may be a headache for public power enthusiasts in this connection, as a by-effect of growing attacks on highway cost estimates. The Hoover Commission findings on power deficits can logically be reviewed with highway experience in mind. As it is, the commission originally computed a cumulative deficit for the principal federal power projects from their beginning to June 30, 1953, at $331,591,045. However, recasting their figures on the basis of what federal power charges should actually have been . . . the commission said this deficit was nearer $597 million."

Whether reclamation borrowed its defense from public power, or the reverse, it is not surprising that public power is now busily proclaiming in the *Congressional Record*, and in its publicity, that it also pays its way, and more. This is the specific argument by TVA each time an attempt is renewed to put its operations more nearly on an equable basis with private companies.

PUBLIC power elements in Congress and among the public power lobby have, of course, been perfectly aware of the changing outlook. They obviously realize the development is giving the Hoover recommendations some of the potential of a delayed-action mine. Because, prominently in the recommendations were these thoughts:

"To the extent that users of federally generated power fail to pay their proportionate share of the cost of the various governmental units—the equivalent of local, federal, and state taxes—that deficiency must be made up by other local, federal, and state taxpayers."

Also,

"To the extent that revenues from federal power operations do not cover operating, maintenance, amortization, or replacement costs, that deficiency must be made up by the federal taxpayer."

It is admittedly hindsight, but it begins to look like public power has been very shortsighted in its position on these points. If, instead of taking advantage of its strong governmental backing in past years to defy those who insisted they were not paying their full costs, public power had made a show of meeting these complaints, the current development would hold a much less serious threat from their viewpoint.

It may now be too late. The developing administrative approach that all federal projects should bear a reasonable share of their cost can well take its departure from the computations of the Hoover group, which in the light of today's taxes and today's accelerated costs, can be expanded, and may well be expanded in due course.

Deficits on Federal Projects

There may be a headache for public power enthusiasts in this connection, as a by-effect of growing attacks on highway cost estimates. The Hoover Commission findings on power deficits can logically be reviewed with highway experience in mind. As it is, the commission originally computed a cumulative deficit for the principal federal power projects from their beginning to June 30, 1953, at $331,591,045.

However, recasting their figures on the basis of what federal power charges should actually have been, in order to cover fixed charges usual in private business, the commission said this deficit was nearer $597 million.

The same inquiry resulted in a finding, however, that even at that period, there were serious grounds to suspect understatement of costs on many federal projects. A re-examination of power costs historically, and in the light of usual commercial practices, might well result in a new finding that revised charges are very much in order.

The commission found that a number of "highly significant costs" on navigation projects were not readily ascertainable. In passing it should again be recalled that under the heading of navigation projects are included such as the Warrior-Tombigbee, the Ohio river, the Sacramento ship canal, and others, although none of these were specifically singled out in referring to shaded cost estimates.

The commission reported, in connection with various federal projects for the Southwestern Power Administration, that "the Corps of Engineers has furnished this task force with information which shows that the total cost of nine projects as of July 1, 1953, was twice the cost estimated at the time the projects were authorized."

The Bureau of Reclamation "has constantly understated the cost of projects," said the commission, and more to the same effect, so that a question that appears not to have been objectively answered may be asked again: Are we getting the real cost picture on public power?

In passing, the reference to underestimated costs of reclamation suggests, also, a second look at some of Reclamation's claims as to benefits it has conferred, virtually gratis, if they are read as written. The overriding question, of course, is what margin of charges is necessary, and is this margin to be fixed on public power's own figures, which frequently are hypothetical, or is it to be bare knuckle,

as a private concern would necessarily have to figure its charge.

A ready answer, unfortunately, is that the matter is not going to be settled that easily.

There are obvious reasons why no administration can simply go down the line, on the issue. Public power has had a long time to dig in. And it is familiar with the line of attack.

Public Power Hurdles

REPRESENTATIVE Chet Holifield (Democrat, California), and one of the Hoover Commission, has taken the strongest exception to most of the commission recommendations. He opposes user charges on navigable waterways as inequitable, unless charges are considered for all forms of transportation. Since the charge has not yet been imposed, being still under study, and since it is known already that the principal transportation systems involved are at odds on the matter, and since, furthermore, such private users as pleasure craft are proposed to be exempt, here is the first line of bunkers.

Holifield likewise is critical of proposed changes in reclamation law, which is natural as his state is one of the reclamation group. He will fight "heavier burdens on water users," as he puts it, and as to power, he sees any move to put the Hoover proposals in effect, as destruction of "present benefits of low-cost federal power developments, as well as leading to heavy increases in federal power rates." He, as are most public power sponsors, is still convinced that a leading function of public power is to keep private utilities "in line" through the competition they offer.

THIS line of thought, of course, begs the more recent question as to whether public power's real costs afford any such yardstick competitively. And, of course, any real disclosure of higher actual costs would immediately subject public power to further assessment, as an alternative to continuing drafts on the general taxpayer.

This reasoning is perhaps, subconsciously at least, back of public power's apparent jubilation over the recent Internal Revenue ruling which, if maintained, will muzzle private power attempts to state its case. There are thus, two obvious hurdles for the new policy:

First, to get at the real costs of the major public power developments.

Having got these, to win approval of appropriate new charges on the users.

Public Power Arguments

IT is a curious manifestation that the public power defense has changed little over the years; it is still that its enemies ignore collateral and even intangible benefits, that these enemies are trying to make TVA and other public power administrations "tax collectors" when all in the world they are interested in is giving their people cheap power. By inference, these publicly financed concerns do not want to become mired down in petty cost accounting; they prefer their rôle of public service.

If it is persistently argued that there are some extra costs not being covered, they point to a higher overall volume of tax payments from the states served, which, according to argument, are so much larger than before TVA for instance, as to offset any payments that otherwise would

have had to be made by the power agency. Whether these higher general tax collections may in part be attributed to the increases in taxes themselves incident to two major wars since TVA was launched, might be a part of the question when the time comes.

Thus reclamation interests point to "a $269 million investment in irrigation that has produced $1,031 million in subsidies and support to the general taxpayers, according to bureau figures, after returning its own costs in increasing tax revenues."

Overzealous Claims

MAYBE. But the Reclamation Bureau has been charged as one of the more flagrant offenders in "overestimating" claimed benefits. The bureau has been charged with overenthusiastically including "direct, indirect, and public benefits" which on closer examination are not so readily detectable.

It would be interesting to know if the take from Reclamation would be so favorable if it had to be apportioned to cover the cost of government subsidy payments on some of the crops it has fostered, which were already surplus. This is a sore point with reclamationists, but one on which the figures are hard to dodge.

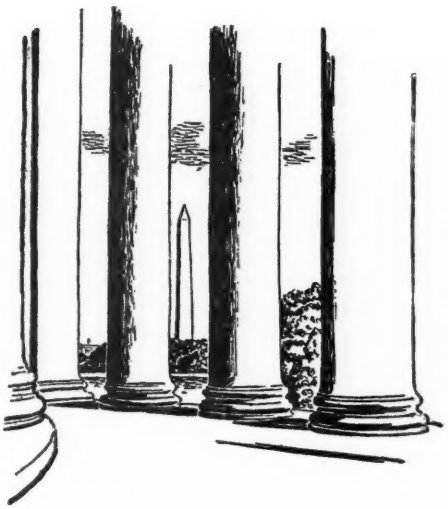
It may help to illuminate the zeal which actuates some of these federal project forces, and which zeal has to be dealt with in attempting to tie down such items as costs of service, to cite a recent suggestion tossed out by an Agriculture Department functionary. Citing the growing sprawl from the cities, he proposes that the coastal marsh areas adjacent to metropolitan centers be drained and reclaimed for farm land. This despite the uphill battle to take out farm land already surplus, and despite that these marshes are the last refuge of thousands of wild game. Right now most of them are dotted with gun boxes, with a waiting list for occupancy.

What of the Future?

WHAT looms ahead for public power now, despite all these defensive maneuvers, is a rather open-and-shut situation. Until now, a relative few were bearing the load. The interest in who is paying for public power, or if anybody is paying, has been hard to stir. Now, every autoist on a federal highway is paying, and he knows it. If he does not, the same legislators and the toll road collectors will help him understand; if the average air passenger does not know it, he is, or soon will be, helping to pay for those extra-long jet-age runways the government supposedly helped finance.

This is true right down the line, until we come to public power. Before the beneficiaries of public power are finally brought into a balance with these benefits, a last-ditch fight obviously is in the making. But with so many others paying "user charges" which they can recognize and connect directly with "use" it is going to be increasingly difficult to sell the general taxpayer the idea that in addition to paying his own way, on the highways, in the air, or the water, he should continue to be "deducted" for somebody else's low-cost power—low cost to the other party, that is.

Washington and the Utilities



Ike's New Budget

SNIPING at the President's proposed Budget for fiscal 1960 is likely to become the favorite pastime of the new Congress. Nevertheless, the administration's decision to submit a prospectively balanced Budget should produce some constructive results. First, it will enable the administration to dramatize the costliness of any expensive spending programs which might be enacted by Congress; and, second, the blame for whatever deficit spending that is expected to occur may be placed squarely on a Congress heavily dominated by the political opposition.

No one really expects the Treasury to end the next fiscal year with a surplus, as provided in the new Budget. For one thing, the balanced Budget assumes an increase in postage rates and gasoline taxes. Congress is plainly in no mood to boost either. The Budget also anticipates increased revenues from expanded economic activity, an item which is always an imponderable.

On the other hand, the submission of a theoretically balanced Budget should tend to put the brakes on unwise spending programs. It should not be forgotten that the opening squabbles over organization of the new Congress ended with conservative Democrats in firm control of the important legislative machinery. No doubt the Democratic leadership will have to make some concessions to liberals whose strength was greatly increased in the November elections. But an irresponsible spending orgy is not likely to materialize with Senate Majority Leader Johnson and House Speaker Rayburn at the height of their power and prestige.

FOR the second year in a row, President Eisenhower has asked Congress to hold the line on new water resource projects. No new projects are recommended, including the controversial Fryingpan-Arkansas project, although the President did ask for its authorization. Despite this, the Budget earmarks $1.1 billion for flood control, navigation, irrigation, and related activities of the Army Corps of Engineers and the Bureau of Reclamation. This figure is an all-time high for such purposes and will be even higher in the next two succeeding years. Said the President:

In the years after 1960, an amount of $5 billion will be required to complete going projects, and annual expenditures in 1961 and 1962 will be even higher than in 1960. In view of this extremely high level of commitments and expenditures, the Budget contemplates that in some cases work on new starts, for which appropriations were made for 1959, will be limited in that year largely to preconstruction activities, including land acquisition. No additional funds are requested to start new projects in 1960.

Specifically, the Budget calls for $864,848,000 in fiscal 1960 for rivers and harbors and flood-control projects of the Corps of Engineers, an increase of about $54 million. For reclamation projects, the Budget requests $255.5 million, about $14 million less than last year, although the amount for construction and rehabilitation is up about $9 million from last year. The reclamation Budget includes funds for the Trinity river project in California, but makes no request for this project's power facilities, which the administration would like to see built under a partnership arrangement with Pacific Gas and Electric Company.

To help improve financial management, the President said he would request legislation to establish revolving funds for the Bonneville, Southeastern, and Southwestern administrations. With this legislation, said the President, part of the receipts from the power sales of these power-marketing agencies would be used directly, subject to such limitations as may be included in appropriation acts, for financing the operation and maintenance expenses of the marketing agencies, thus reflecting the results of these business-type operations in the Budget on a net basis. The Budget asks for $735,000 for SEPA, the same as in the present fiscal year; $6,930,000 for SPA, up about $1.5 million; and $35,250,000 for BPA, an increase of about $5 million, most of which will go for construction of new transmission lines.

As expected, the President again requested self-financing legislation for TVA, of the type that will permit Congress to retain control over the agency's budget.

The President likewise renewed his request for an increase in the interest rate charged on loans to REA electric and telephone co-ops, and for legislation to facilitate private financing for future co-op expansion. He also suggested the establishment of a revolving fund for the REA loan programs.

The Budget requests $135 million in new loan funds for the REA electric program, and $79 million for the telephone program, plus a $25 million contingency fund for each program. With carry-overs, this would make $215 million available next year for electric loans and $80 million for telephone loans. Nevertheless, Congress is expected to repeat its performance of last year when it doubled the amount requested for electric loans.

The President's recommendations for REA drew sharpest criticism from Clyde Ellis, general manager of the National Rural Electric Co-operative Association. Ellis labeled the Budget proposals a "fraud" and said that the President's recommendations, if carried out, would "bankrupt a majority of the rural electric systems and throw them at the mercy of the predatory commercial power companies." Ellis said that most rural power systems service only about three persons per line mile and no private company could serve these lines at a profit

without raising the prices out of reach of the consumers.

But Budget Director Maurice Stans takes a different view of the situation. Stans recently brought to public attention the increasing nonagricultural character of REA co-op service. As industry and population move away from the cities, farmers are giving way to suburbanites, motels, factories, restaurants, and military installations as the main customers of the co-ops that benefit by cheap federal credit. "The startling fact is," said Stans, "that three out of four new users currently being added are now nonfarm users. About one-half of REA electric power goes to industries, communities, or nonfarm families."

THE new Budget offers few clews as to the administration's plans for the civilian atomic power program. A total of $155,495,000 has been requested for work on nuclear power reactors, an increase of about $7 million over last year's appropriation requests. In addition, $18.8 million has been budgeted for reactor development out of funds for construction of projects previously authorized. There will be a later request for legislation authorizing new projects, and including $35,350,000 for reactor development. How much of this money will be used for civilian reactors is not yet clear.

"The commission in exercising its responsibility for direction of the civilian nuclear power development program will identify desirable projects to advance that program," the President said in his Budget message. "In carrying out these projects, the commission will continue to work with the nation's electric power producers, both privately and publicly owned, and will continue to seek co-operation from industry in order to utilize its experience and resources."

Rapid Tax Credits

THE SEC is expected to announce shortly an interpretation of administrative policy on financial statements regarding balance sheet treatment of credits equivalent to the reductions in income taxes.

The commission said it believes such action is necessary in the public interest or for the protection of investors and is consistent with the intent of Congress, as expressed in § 167 (liberalized depreciation) and § 168 (accelerated amortization) of the 1954 Internal Revenue Code. The effect of these sections is to premit tax-free recovery from operations of capital invested in plant at a faster rate than would be possible by depreciation methods previously permitted for income tax purposes.

The cash working capital is thus temporarily increased by an amount equal to the current tax reduction resulting from the excess depreciation deductions taken for tax purposes in earlier years. This procedure will result in reduced depreciation deductions in future years for tax purposes on the related plant with a resulting increase in income taxes over the amount which otherwise would be payable.

THE SEC statement takes particular notice of the utility problem in this area. The statement refers directly to Accounting Research Bulletin No. 44 (revised), issued last July by the committee on accounting procedure of the American Institute of Certified Public Accountants. This bulletin noted: "Many regulatory authorities permit recognition of deferred income taxes for accounting and/or rate-making purposes, whereas some do not. The committee believes that they should permit the recognition of deferred income taxes for both purposes."

The SEC's announcement of its intention to interpret financial statements has already had an interesting regulatory impact. The Bangor Hydro-Electric Company is using the statement as "new evidence" to support the company's request to the Maine commission for a rehearing on the depreciation aspects of a recent rate case. The commission ruled that the company was obliged to take advantage of accelerated depreciation and pass on the benefits to consumers whether it wants to or not. It is probable that a final ruling may be held up pending the SEC announcement of its policy.

New Bills in Congress

THE first few weeks of the new Congress have seen the usual flood of bills and resolutions, many of them proposed but not acted upon last year. Among the more important are bills calling for aid to depressed areas (vetoed last year) and loans to localities for construction of community facilities (killed in the House last year). A greatly increased Democratic majority in both houses is expected to approve some such legislation, although it remains to be seen whether there are sufficient votes to override anticipated vetoes from an economy-minded President.

Bills affecting REA are numerous. Representative Price (Democrat, Illinois) and Senator Humphrey (Democrat, Minnesota) have reintroduced their bill to remove the REA program from any supervisory control by the Secretary of Agriculture (HR 1231, S 144). Senators Curtis (Republican, Nebraska) and Russell (Democrat, Georgia) are jointly sponsoring a measure that would re-establish REA as a separate agency, altogether apart from the Agriculture Department (S 75). Senator Aiken (Republican, Vermont) heads a long list of bipartisan sponsors of a resolution designed to nullify a ruling of the Comptroller General with respect to REA loans (S Res 21). It will be recalled that the Comptroller General made a ruling last summer which would ban loans for "persons located on, alongside of, or within a 'reasonable distance' of an existing power line," or if they can be served by an existing power line without any extension. The Aiken resolution would clarify the intention of Congress that REA loans continue to be granted on the same basis that they have been granted since the inception of the REA loan program. Finally, bills have been reintroduced to adjust the interest rate on REA loans to correspond with the interest rate paid by the Treasury on similar long-term obligations.

ON the natural gas front, Representative Harris (Democrat, Arkansas) has again introduced a bill to relieve independent producers of natural gas from federal regulation (HR 366). One of the bill's provisions would bar dumping of gas to industrial users at cut-rate prices. The bill would keep some controls over producer prices whereby the FPC would decide a reasonable market price for all producers selling to interstate pipeline companies. It should be noted, however, that many of the new Democrats in Congress come from northern urban areas that are traditionally opposed to such a bill on the grounds it would result in higher prices to consumers. The general consensus is that the Harris Bill has little chance of approval this year.

Senator Neuberger (Democrat, Oregon) is expected to introduce this month his measure to establish a Columbia River Development Corporation.

Telephone and Telegraph

Ike Would Sell Alaska Wire Service

PRESIDENT Eisenhower on January 19th said he intends to ask Congress to authorize the sale of the federally owned long-line communications system in Alaska. He made the announcement in his fiscal 1960 Budget message. He said now that Alaska is a state it should have a communication facility which will be "more responsive" to the growing needs of its expanding economy and new governmental status.

Mr. Eisenhower said the system should be developed by private enterprise. The Army, Air Force, and Commerce Department presently operate Alaska's communications system, the only long-line service in the former territory.

The government-operated facility provides the only telegraph, telephone, and radio contact between Seattle, Washington, and Alaska and from one city to the other within the new state. Alaska does have privately operated telephone companies in its various cities, but a citizen who wants to make a telephone call to another city or to another state has to use the federal facility, known officially as the Alaska Communications System.

Congressional hearings have been held in past years on various proposals to get the government out of the communications business in Alaska, but they have never resulted in any successful legislation. Mr. Eisenhower said he would make his recommendations for specific authorizing legislation "soon."

The Budget, in several other instances, reflected the added responsibilities that Alaska will have to take on as a new state. The President made no individual requests for funds to operate such standard Alaska budget items as the mental health program, airport operation and maintenance, and the highway program.

He said he would ask Congress later to make a supplemental appropriation of $10.5 million to keep these projects going during Alaska's transitional period. But the Chief Executive made it clear that Alaska will have to begin assuming many responsibilities previously handled from Washington.

FCC Annual Report

THE Federal Communications Commission in its annual report released on January 17th envisioned a fantastic world ahead in communications. Discussing "tomorrow," the report states "things are changing so rapidly that almost anything is possible."

For example, bouncing radio signals off the moon and emissions from man-made satellites circling the globe give promise of radio communication with future space platforms. It said that "visual telephony" is within the range of possibility. This is a medium through which persons talking to each other by telephone would be able to see each other.

The commission also foresaw use of the upper layers of the atmosphere to transmit international television. Also future growth for small and less costly television stations. It said the future promises:

> Still bigger TV screens, with their "ultimate inclusion" in the walls of new housing.
>
> More educational programing, either by educational or commercial stations or by closed circuits.
>
> Widening use of radio by private business and individuals.
>
> More and more radio interference "bugs" will be eliminated through better curbs on radiation, improvement of equipment, and co-operation of manufacturers and others concerned.
>
> Ways will be found to reduce the height of high transmitting and receiving antennas without sacrificing service or quality.

As for the present, the FCC said "no other nation has made such progress in telecommunications." Whether it is broadcast or radio, or wire operation, "service in this country far surpasses that anywhere on the globe."

FCC Tax Change Proposed

PRESIDENT Eisenhower in his Budget asked for legislation to turn over part of the federal excise tax on monthly telephone bills to states assuming certain welfare responsibilities now paid by the federal government. This follows the line of the Joint Federal-State Conference proposal of last September.

Referring to this in his message, President Eisenhower stated:

> As part of my proposals referred to later in this message to return responsibility for certain federal programs to the states—in this instance, responsibility for vocational education and for waste treatment facilities—federal excise taxes on local telephone service should be revised effective July 1, 1960, to allow limited credits for telephone taxes paid to the states.

As revised in the Joint Federal-State Conference proposal last year, the federal government would turn over approximately 40 per cent of the revenue collected from the 10 per cent excise tax on telephone bills to those states which agreed to finance certain welfare services. Through an adjustment of relative benefits and responsibilities, no state would derive less benefits under the proposed plan than under present federal assistance welfare contributions.

Early reaction to the President's proposal was not immediately ascertainable. But a somewhat similar proposal in the 85th Congress failed to make any headway. It was thought that the subsequent adjustment of individual state benefits might make the proposal more acceptable to the new Congress.

Bills to Reform the FCC

REPRESENTATIVE Emanuel Celler (Democrat, New York), chairman of the House Judiciary Committee, took the lead in introducing bills to reform unethical or irregular practices growing out of the House subcommittee investigation of the FCC and other regulatory commis-

sions. It is expected, however, that two legislative proposals will get the most serious attention from the House Committee on Interstate and Foreign Commerce. One would be the expected measure to impose a code of ethics with punitive provisions, as recommended by the recent report of the House Legislative Oversight Subcommittee. The other is the perennial suggestion that an "administrative court" should be interposed between applications for FPC licenses and the commission itself. This would, in effect, greatly revise if not abolish the present method of direct regulation of license applications by FCC examiners, supplemented by FCC orders.

It is generally expected that some form of "code of ethics" bill will be passed. But there is not much optimism that it would serve any real function in reforming present procedures. That is because the FCC and its practitioners were always supposed to be acting under a code of ethics and if they do not know what they should do now, statutory enforcement will not help very much.

There is a split opinion, however, over the effectiveness of an administrative court. The original idea was to speed up the administrative process to cut down on the delay and government red tape which have plagued the FCC almost from its inception in 1934. But whether the interposition of an entirely new tier of regulatory procedure between the FCC and its applicants would actually speed up or tend to delay proceedings even more, is the gist of an argument which Congress will be hearing much more about.

Oregon Phone Rates Reduced

JUST before retiring as Oregon public utility commissioner, Howard Morgan cut $4 million from a rate increase application of the Pacific Telephone and Telegraph Company. Morgan, who was succeeded by C. G. Hieber, a career employee of the commission, granted the company $759,097, applicable only to certain special services and equipment charges and to business telephones in those cities where toll-free service had been provided in recent years. The company had sought a rate increase of $4,858,000.

PT&T was forbidden to increase the rates of any residential telephone service in the state and, likewise, to increase any long-distance toll charges within the state. Morgan found the existing toll charges to be higher than charges for comparable calls extended across the state line. Instead of a company-filed rate base of $130,630,920 assignable to Oregon intrastate operations, the commission allowed a rate base of $120,600,017. The company asked a rate of return of 7.04 per cent of its claimed rate base. Morgan allowed a 6.35 per cent return on a reduced rate base.

Free Phones for City Franchises Banned in North Carolina

NORTH CAROLINA'S state utilities commission reaffirmed its recent decision prohibiting a telephone company from granting free service to municipalities in exchange for franchise rights. Rate concessions to cities and towns by Carolina Telephone & Telegraph Company, the commission said, amount to a franchise tax in violation of North Carolina law. "The bargaining away of revenue by concession rates," it added, "is detrimental to the remaining customers" who have to make up the difference.

The cities argued that the free service was not a franchise tax on the telephone company's privilege to do business, but was "in payment of service rendered."

Financial News and Comment

By OWEN ELY

Utilities Urged to Claim "Fair Value"

ROBERT S. QUIG, manager of the rate department of Ebasco Services, recently made an interesting address on regulation before the New York Society of Security Analysts, which we summarize as follows:

With respect to rate base questions, he referred briefly to the old Smyth *v.* Ames and Hope Natural Gas rulings of the Supreme Court. The latter was considered adverse to the "fair value" concept but in 1944 the general price level was far below that of today, and the problem of inflation had less significance. Moreover, the decision was not really binding on the state commissions, which should be guided by state laws. Thus the Montana supreme court recently stated: "The Hope case . . . is not binding upon the public service commission of Montana. Its action must square with the Montana statutes and the decisions of this court." (March 19, 1957, 18 PUR3d 277, 282.)

However, in the period immediately following the Hope case, many state commissions felt that fair value could be taken as synonymous with net original cost, and few utility companies dared appeal from the commissions to the state courts. But in later years such appeals have been taken, and the courts of Arizona, Delaware, Illinois, Indiana, Iowa, Maryland, Missouri, Montana, New Mexico, and New York (with respect to telephone utilities) have upheld fair value. Other states which allow fair value are Alabama, Kentucky, Minnesota, North Carolina, Ohio, Pennsylvania, and Texas. Thus about one-third of the states definitely permit fair value.

BUT evidence of fair value is also *permissive* by state law in all but one of the other 32 states (Maine). Hence Mr. Quig feels that it is the *duty* of all utilities outside Maine to present evidence of fair value in their rate applications, regardless of commission attitude. Of course the language of the state laws differs widely, but he thinks that many utilities are wrong in accepting original cost while they really have a statutory right to present evi-

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dence on fair value. Fair value is absolutely necessary to counter inflation, he feels. About half the $61 billion electric and gas plant investment was installed before 1950-51 and since that year construction costs have increased roughly one-half. Moreover inflation still continues with respect to building costs.

Among the more recent court decisions which have reversed commissions or municipalities to permit fair value are the following: supreme court of Missouri, December 9, 1957, Missouri Water Co. *v.* Missouri Public Service Commission (22 PUR3d 254); Iowa supreme court on September 17, 1957, Iowa-Illinois Gas & E. Co. *v.* City of Fort Dodge (20 PUR3d 159); and supreme court of Alabama, in the Southern Bell Telephone & Telegraph case, July, 1958.

Without using fair value, many commissions now recognize the problem of inflation by making concessions of one kind or another, such as allowance for "regulatory lag." Use of the "forward" rate base—a base later and therefore larger than of the test year—is an inadequate and unsatisfactory compromise, Quig feels. The commissions of California, Colorado, Connecticut, Florida, Kansas, Kentucky, Maryland, Massachusetts, Missouri, Montana, New Jersey, New Mexico, Oklahoma, Utah, Virginia, and Wyoming have used not only "end-of-period" rate bases recently, but have in some instances projected rate bases at least six months ahead.

ANOTHER device is to allow a higher rate of return. He quoted 1957-58 decisions by the Maryland, Utah, and California commissions in this connection. Southern California Gas was allowed 7.25 per cent for the test year, although it was held that with inclusion of later investments the return would be reduced to 6.75 per cent. In the recent General Telephone case in California 7.1 per cent was allowed on a "forward" original cost base, although 6.6 per cent was considered reasonable. Other states which have recognized "erosion" due to regulatory lag are Arizona, Colorado, Florida, Idaho, Kentucky, Maryland, Nebraska, New Hampshire, New York, Ohio, and Virginia. The commissions are also beginning to recognize inflation as related to higher money rates and increased cost of capital.

Mr. Quig pointed out that there are still other methods by which the commissions could combat inflation: by moving upward the "front ends" of rates (as in New York and Pennsylvania recently) and by greater attention to escalation clauses—fuel clauses in the electric business, gas purchase adjustment clauses in the gas business, and tax clauses in all utility business. He cited the results of the New York, Oklahoma, and Kentucky decisions in allowing automatic gas purchase adjustment clauses.

Unfortunately bills are being introduced in some states designed to eliminate fair value. The utility industry should make every effort to combat this. Many companies are trying to educate their public by a "grass-roots" campaign. Publicity regarding the serious effects of inflation should be increased.

REGARDING the cost of financing, Mr. Quig was queried as to whether the present low cost of equity capital might be considered an offset to the high cost of senior money, and replied that the market place apparently does not take account of all the risks in the utility field—competition of various kinds, regulatory and political hazards, etc. Because of these risks, he pointed out, all past plans for automatic changes in rates (profit sharing,

etc.) have proved unsuccessful sooner or later.

In reply to a question as to whether the increased efficiency of generating equipment has not offset the higher cost of money in recent years, he pointed out that the cost of construction for other facilities had also increased, generally without offsetting economies. (In 1957, according to EEI figures, production facilities cost only about 45 per cent of total construction.)

Regarding the treatment accorded tax savings from accelerated depreciation, Mr. Quig summarized the situation as follows from the *accounting* angle: Six states (Alabama, Colorado, Florida, New Hampshire, Virginia, and West Virginia) permit normalizing without a reserve. Fifteen states (Arkansas, Georgia, Illinois, Indiana, Kansas, Louisiana, Maine, Massachusetts, Minnesota, Missouri, Nebraska, New Mexico, Ohio, Tennessee, and Vermont) have ordered normalization and prescribed a reserve. Five other states (Kentucky, Michigan, New Jersey, Oklahoma, and South Carolina) have permitted normalization and the use of *either* restricted surplus or reserve.

WISCONSIN provides for a charge to depreciation expense and a credit to depreciation reserve (in addition to the regular depreciation computed on a straight-line basis) equal to the reduction in federal income taxes resulting from the use of liberalized depreciation. The Federal Power Commission (in Orders 203-4) has permitted, for accounting purposes only, the normalization of tax savings.

For *rate-making purposes* eight states (Florida, Indiana, Oklahoma, Massachusetts, Louisiana, Nevada, Wyoming, and New Mexico) have permitted full normalization of tax savings. In other words, not only have normalized taxes been allowed as an expense but the tax reserve or restricted surplus has not been deducted from the rate base. Six states (Illinois, Kansas, Kentucky, Georgia, Michigan, and Ohio) have allowed taxes to be normalized, but have either deducted the tax reserve or restricted surplus in rate base determinations or have considered the amount involved as interest-free capital in the determination of rate of return.

EIGHT states (Maine, Missouri, New Hampshire, New Jersey, North Dakota, New Mexico, Pennsylvania, and West Virginia) have ordered the use of actual taxes ("flow-through"). The supreme courts of Maine and Pennsylvania have sustained the state commissions. The Federal Power Commission has not yet ruled on the treatment for rate-making purposes of the deferral of income taxes resulting from liberalized depreciation, although it issued a declaratory order (for accounting purposes) on June 30, 1956, in

CURRENT YIELD YARDSTICKS
(Standard & Poor's Indexes)

	Jan. 21, 1959	*1958-59 Range*		*1957 Range*	
		High	*Low*	*High*	*Low*
Utility Bonds—A1+	4.28%	4.28%	- 3.58%	4.38%	- 3.70%
—A1	4.33	4.34	- 3.61	4.41	- 3.73
—A	4.51	4.51	- 3.85	4.70	- 3.96
—B1+	4.85	4.96	- 4.20	5.21	- 4.21
Preferred Stocks*	4.52	4.67	- 4.26	4.86	- 4.42
Utility Common Stocks	3.73	4.98	- 3.73	5.44	- 4.73

*Twelve industrial and two utility issues (high-grade).

the case of the Amere Gas Utilities Company (15 PUR3d 339). However, on December 17, 1958, a presiding examiner allowed normalization of taxes resulting from § 167 in the rate proceedings of the United Fuel Gas Company.

The Maine commission, in the recent Bangor Hydro-Electric 2-to-1 decision, used accelerated depreciation figures (with flow-through) as the basis for a rate decision, even though the company was not employing accelerated depreciation. The company has asked for a rehearing. Such action would seem contrary to the Supreme Court decision in the Southwestern Bell Telephone case (1923) in which the court stated: "The commission is not the financial manager of the corporation and it is not empowered to substitute its judgment for that of the directors of the corporation . . ."

SUMMARIZING with respect to the progress of applications for increased revenues, Mr. Quig stated that in 1958 electric utilities received some $76 million in rate increases, gas distribution utilities $85 million, and the Bell Telephone system $87 million. As of the end of 1958 there were some $92 million of electric rate increase applications which had not been acted upon, a backlog of $76 million in applications by gas distribution companies, and $34 million by the Bell Telephone system companies. In addition to this, the natural gas pipelines have something over $200 million in rate increase applications before the Federal Power Commission, most of which are being collected subject to refund, with the balance still in suspension. Following the Memphis decision, the FPC sent letters to all pipeline companies with cases before the commission asking for up-to-date data to help expedite disposal of their cases.

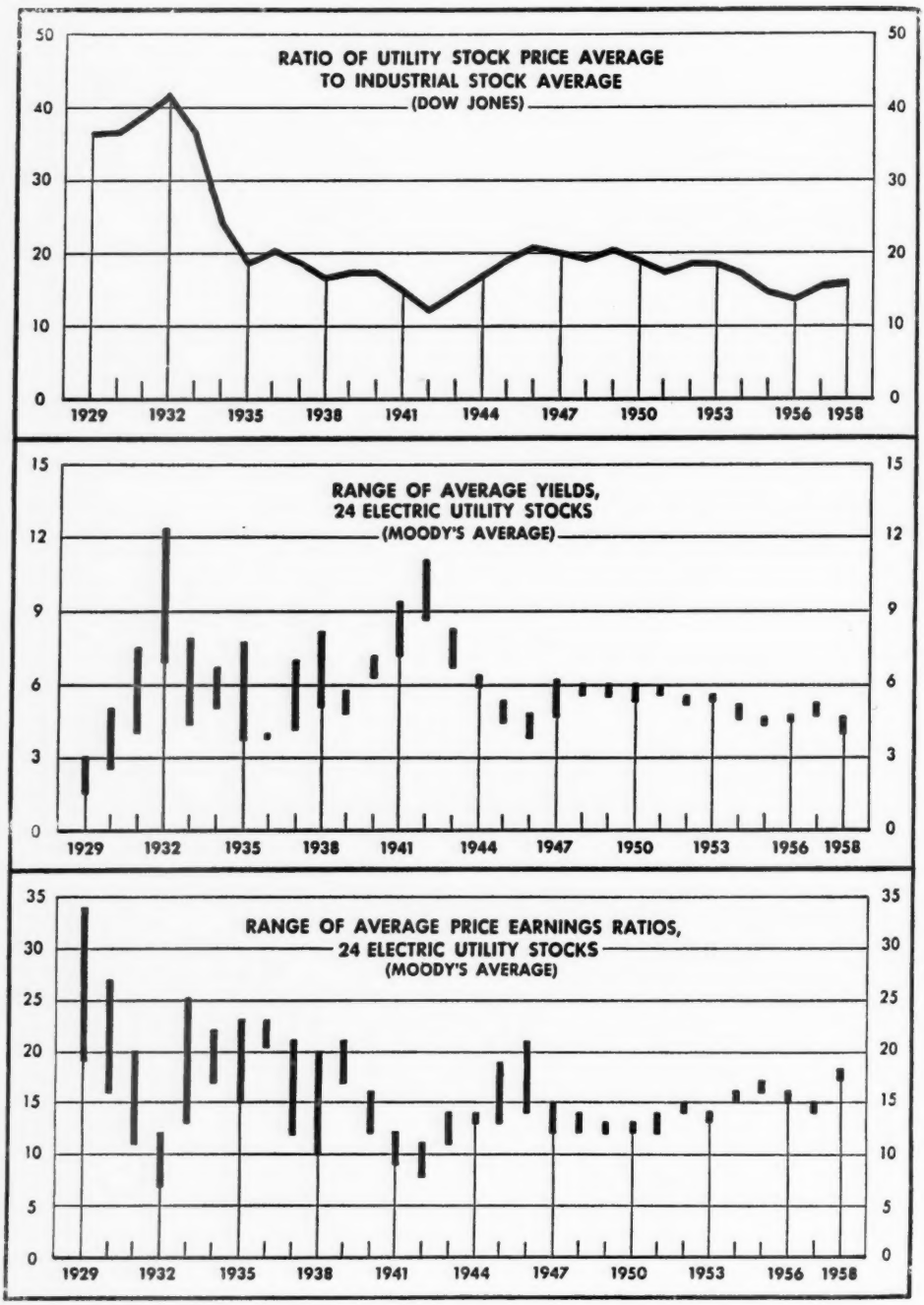
Electric Utilities Still Far from Extremes of 1929

THE chart on page 248 (top box) shows the trend of the relationship

CALENDAR OF PROPOSED UTILITY OFFERINGS
February 4-April 30, 1959

Date of Bidding Or Sale	*Approx. Amount (Millions)*		*Method of Offering*	*Moody Rating**
		Bonds		
2/17	$25	Public Service of Indiana	C	Aa
2/24	10	Duquesne Light	C	Aaa
2/25	50	Illinois Bell Telephone	C	Aaa
3/	16	Monongahela Power	C	A
3/	8	Hawaiian Electric	N	A
4/	14	Wisconsin Power & Light	C	A
4/ 2	7	Gulf Power Bonds	C	A
4/30	20	Alabama Power	C	A
—	30	Cleveland Elec. Illuminating	C	Aaa
—	20	Kansas City Power & Light	C	Aaa
—	5	Missouri Power & Light	C	A
		Common Stock		
2/ 4	45E	Southern Company	C	
2/ 6	18E	Connecticut Light & Power	S-N	
2/ 6	11E	Rochester Gas & Electric	S-N	
3/ 3	15	Pacific Power & Light	S	
3/31**	6E	Calif. Electric Power	C	
3/	4	Eastern Utilities Associates	S-C	

C—Competitive. N—Negotiated. S—Subscription. E—Estimated. **Tentative. *Preliminary rating or rating of similar issue of same company.


RATIO OF UTILITY STOCK PRICE AVERAGE
TO INDUSTRIAL STOCK AVERAGE
(DOW JONES)
50
40
30
20
10
0
1929
1932
1935
1938
1941
1944
1947
1950
1953
1956
1958
RANGE OF AVERAGE YIELDS,
24 ELECTRIC UTILITY STOCKS
(MOODY'S AVERAGE)
15
12
9
6
3
0
RANGE OF AVERAGE PRICE EARNINGS RATIOS,
24 ELECTRIC UTILITY STOCKS
(MOODY'S AVERAGE)
35
30
25
20
15
10
5
0

between average prices of utility stocks and average prices of industrials during the period 1929-58, based on the Dow-Jones averages. The figures used are the medians of high and low prices for each year.

The ratio line shows that the 1929 period was the heyday of popularity for utility stocks as contrasted with industrials, reflecting the promotion of the holding companies and the competitive bidding by promoters for the stocks of the operating companies. Immediately after 1929 utility dividends were increased (presumably in an effort to bolster prices) and hence utilities acted a little better than industrials, whose dividends were being cut. The relative popularity of utilities thus increased during the bear market, reaching a peak in 1932.

However, 1932 was the year that Franklin D. Roosevelt was elected and from then until 1942, under pressure of federal breakup of holding companies and drastic accounting write-offs, our utility "index of popularity" declined from 42 per cent to 12 per cent. Nineteen forty-two marked the worst period in the breakup program, the SEC threatening to sell the assets of holding companies "on the barrel head" somewhat as sheriffs had sold mortgaged farm properties. However, this pressure was relieved as the SEC adopted a more lenient policy, negotiating integration or liquidation plans gradually instead of forcing immediate sales or distributions.

By 1946 the ratio had recovered to 21 and it remained fairly close to that level until 1953, when a new decline set in to 13.4 in 1956. Both groups were of course advancing during that period, but the industrials outran the utilities because of their nonregulated earnings potential. In the past two years, however, utilities have regained some measure of popularity (the index recovering to an estimated 15.7 for 1958) presumably because of the fine showing they made during the recent recession and the many dividend increases. Nevertheless, it should be noted that in raising the huge amounts of new capital required for their construction program, utilities are meeting with strong competition in the market place from the stocks of nonregulated industries.

The other two boxes in the chart show the 1929-58 trend of utility stock yields and price-earnings ratios, respectively, based on the Moody average of 24 electric utilities. Since 1941 this average has consisted only of the stocks of large electric operating utility companies (including three generally characterized as "growth utilities").

In 1929, however, it contained a mixture of holding company stocks along with electric, gas, telephone, and transit operating company stocks. (Only five electric operating company stocks were included.) At that time the great majority of operating electric companies were controlled by holding companies, so that it was difficult to make up a representative average. While the figures are not comparable, therefore, the ratios may still be of interest. There are a few stocks, however, for which a straight comparison

	1929 "Tops"			*Recent Ratios*		
	Price	*Yield*	*P-E*	*Price*	*Yield*	*P-E*
Consolidated Edison	183	1.8%	38	68	4.1%	19
Detroit Edison	70	2.1	35	45	4.4	21
Pacific Gas & Electric	99	2.0	35	62	4.2	17
Southern California Edison	92	2.2	29	61	4.3	17

between the 1929 extremes and the current position can be made, as shown in table, page 249.

It is obvious that we are still a long way from the 1929 extremes, even if the higher ratios for growth utilities (around 25) should be used. Moreover, today's earnings and balance sheets are much more "solid" than in 1929. While the question may remain as to how far into the future we are warranted in discounting anticipated increases in utility earnings, nevertheless there is some satisfaction in noting that while the Dow-Jones industrial average is far above the 1929 peak, utility ratios are still well below the unreasonable extremes of August, 1929.

SEC May Require Reserves For Deferred Taxes

The SEC on December 30th issued a "Notice of Intention to Announce Interpretation of Administrative Policy." (See *P.U.R. Executive Information Service* letter of January 23rd, page 2.) A large number of utility companies which use accelerated depreciation, with normalized "tax deferrals" carried to restricted surplus rather than to a reserve, are disturbed over the SEC implication that they may not be permitted in future to include deferred taxes in common stock equity. Future financing plans for some companies have been geared to the lower debt ratios corresponding to the increased equity ratios resulting from inclusion of deferred taxes. If an increase in debt ratio is threatened, such companies might have to issue common stock at earlier dates than now anticipated, in order to protect their bond ratings and maintain the present financial setup. It is understood that a number of companies plan to oppose the SEC proposal and are asking for hearings and permission to file briefs.

The SEC release also seems to imply that the commission is opposed to "flow-through" of tax savings except under certain conditions. If true, this might raise some interesting problems as to jurisdiction—since some state commissions require "flow-through."

DATA ON ELECTRIC UTILITY STOCKS

Annual Rev. (Mil.)			*1/23/59 Price About*	*Dividend Rate*	*Approx. Yield*	*Recent Share Earns.*	*% Increase*	*Aver. Incr. In Sh. Earns. 1952–57*	*Price-Earn. Ratio*	*Div. Payout*	*Approx. Common Stock Equity*
$284	S	American Elec. Power	51	$1.68	3.3%	$2.24N	1%	9%	22.8	75%	33%
50	O	Arizona Public Service ...	39	1.20	3.1	*1.89Se	2	7	*20.6	63	27
11	O	Arkansas Mo. Power	23	1.00	4.3	1.34Se	3	2	17.2	75	32
32	S	Atlantic City Electric	43	1.50	3.5	1.89N	7	10	22.8	79	28
142	S	Baltimore Gas & Elec.	47	1.80	3.8	2.15N	—	6	21.9	84	43
7	O	Bangor Hydro-Elec.	39	1.90	4.9	2.52De	14	4	15.5	75	36
6	O	Black Hills P. & L.	32	1.44	4.5	2.42Oc	15	3	13.2	60	30
104	S	Boston Edison	61	2.80	4.6	3.12D'57	D10	—	19.6	90	47
24	A	Calif. Elec. Power	23	.80	3.5	*1.09Se	—	1	*21.1	73	28
23	O	Calif. Oreg. Power	38	1.60	4.2	1.91F	D16	2	19.9	84	35
8	O	Calif. Pac. Util.	35	1.60	4.6	2.33N**	3	3	15.0	69	30
67	S	Carolina P. & L.	40	1.32	3.3	2.00De	8	4	20.0	66	40
30	S	Cent. Hudson G. & E.	20	.80	4.0	1.17Se	14	6	17.1	68	31
23	O	Cent. Ill. E. & G.	37	1.44	3.9	2.53N	3	11	14.6	57	36
37	S	Cent. Ill. Light	35	1.40	4.0	1.99De	D3	9	17.6	70	34
53	S	Cent. Ill. P. S.	43	1.76	4.1	2.58Oc	4	13	16.7	68	40
15	O	Cent. Louisiana Elec.	50	1.80	3.6	2.26Se	8	8	22.1	80	30

Annual Rev. (Mil.)		(Continued)	1/23/59 Price About	Dividend Rate	Approx. Yield	Recent Share Earns.	% Increase	Aver. Incr. In Sh. Earns. 1952–57	Price-Earn. Ratio	Div. Payout	Approx. Common Stock Equity
38	O	Cent. Maine Power	28	1.40	5.0	*1.70N	D8	5	*16.5	82	32
137	S	Cent. & South West	59	1.80	3.1	2.54De	5	10	23.2	71	40
12	O	Cent. Vermont P. S.	22	1.00	4.5	*1.29Se	37	2	*17.1	77	33
121	S	Cincinnati G. & E.	36	1.50	4.2	1.95Se	—	9	18.5	77	39
7	O	Citizens Util. "B"†	24	1.00	4.2	1.25Se	7	7	19.2	80	40
119	S	Cleve. Elec. Illum.	50	1.60	3.2	2.56Se	—	6	19.5	63	50
5	O	Colo. Cent. Power	38	1.32	3.5	1.94Se	17	4	19.6	68	41
44	S	Columbus & S. O. E.	38	1.60	4.2	2.01N	D23	5	18.9	80	30
380	S	Commonwealth Ed.	58	2.00h	5.4h	3.16N	9	5	18.4	63	40
13	A	Community Pub. Service	38	1.30	3.4	1.98Se	3	6	19.2	66	45
75	O	Conn. Lt. & Pr.	26	1.10	4.2	*1.41De	16	5	*18.4	78	34
582	S	Consol. Edison	68	2.80	4.1	*3.65Oc	6	6	*18.6	77	38
221	S	Consumers Power	57	2.40	4.2	3.15De	D5	5	18.1	76	37
78	S	Dayton P. & L.	58	2.40	4.1	3.33Se	8	2	17.4	72	38
49	S	Delaware P. & L.	61	2.10	3.4	2.81Se	1	12	21.7	75	30
251	S	Detroit Edison	45	2.00	4.4	2.17De	D17	11	20.7	92	44
136	A	Duke Power	46	1.60i	3.5	2.38Se	15	15	19.3	67	47
99	S	Duquesne Light	51	2.20	4.3	*2.84Se	6	4	*18.0	77	34
32	O	East. Util. Assoc.	43	2.20	5.1	2.72N	10	0	15.8	81	34
14	O	El Paso Elec.	36	1.00	2.8	1.58N	14	9	22.8	63	36
12	S	Empire Dist. Elec.	25	1.20	4.8	1.52Se	D2	3	16.4	79	32
52	S	Florida Power Corp.	29	.72	2.5	1.22Se	37	13	23.8	59	34
131	S	Florida P. & L.	92	1.64	1.8	3.51De	18	22	26.2	47	39
202	S	General Pub. Util.	49	2.12	4.3	*3.32Se	10	9	*14.8	64	41
7	O	Green Mt. Power	21	1.00	4.8	1.42N	26	7	14.8	70	36
62	S	Gulf States Util.	58	1.80	3.1	2.46N	7	11	23.5	73	31
49	A	Hartford E. L.	69	3.00	4.3	*4.41Se	9	10	*15.6	68	39
25	O	Hawaiian Elec.	52	2.50	4.8	3.03De	D3	12	17.2	83	38
87	S	Houston L. & P.	73	1.60	2.2	2.94	7	11	24.8	54	42
28	S	Idaho Power	50	1.60	3.3	2.60Se	13	12	19.2	62	36
87	S	Illinois Power	39	1.50	3.8	2.05N	6	7	19.0	73	34
46	S	Indianapolis P. & L.	39	1.50	3.8	2.12Se	3	7	18.4	70	35
26	S	Interstate Power	19	.85	4.5	1.08Se	3	2	17.6	79	31
36	S	Iowa Elec. L. & P.	35	1.60	4.6	2.07N	—	5	16.9	77	38
41	S	Iowa-Ill. G. & E.	38	1.80c	4.7	2.41Se	D7	3	15.8	75	38
39	S	Iowa Power & Light	37	1.60	4.3	1.94Se	D6	4	19.1	82	30
34	O	Iowa Pub. Serv.	18	.80	4.4	1.14N	3	8	15.8	70	35
14	O	Iowa South. Util.	29	1.28	4.4	1.98N	8	5	14.6	64	40
61	S	Kansas City P. & L.	51	2.00	3.9	3.08N	3	7	16.6	65	37
32	S	Kansas G. & E.	40	1.48	3.7	2.50N	8	13	16.0	59	30
48	S	Kansas Pr. & Lt.	31	1.36l	4.4	2.00Se	D4	7	15.5	68	31
39	O	Kentucky Util.	36	1.40	3.9	2.36Se	15	3	15.3	60	36
7	O	Lake Superior D. P.	26	1.20	4.6	1.57Se	D2	3	16.6	76	39
110	S	Long Island Lighting	32	1.20	3.8	1.62Se	14	5	19.8	74	34
56	S	Louisville G. & E.	43	1.30	3.0	2.22Se	31	3	19.4	59	41
10	O	Madison G. & E.	51	1.80	3.5	3.46Se	D19	11	14.7	52	44
5	A	Maine Pub. Service	24	1.16	4.8	1.55N	15	7	15.5	75	37
6	O	Michigan G. & E.	64	1.70j	5.7	4.51Se	12	8	14.2	38	40
172	S	Middle South Util.	48	1.80	3.8	2.61N	9	6	18.4	69	35
30	S	Minnesota P. & L.	39	1.60	4.1	2.33De	D6	11	16.7	72	33
3	O	Miss. Valley P. S.	28	1.40	5.0	2.12N	D2	3	13.2	66	32
13	S	Missouri Pub. Serv.	20	.72f	5.6	.92N	D10	9	21.7	78	29
7	O	Missouri Util.	28	1.36	4.9	1.64Se	D11	3	17.1	83	33
44	S	Montana Power	68	2.00	2.9	*3.86Se	4	8	*17.6	52	39
159	S	New England Elec.	21	1.00	4.8	1.29De**	6	0	16.3	78	34
46	O	New England G. & E.	23	1.10	4.8	1.60De**	6	5	14.4	69	41
89	S	N. Y. State E. & G.	57	2.30	4.0	*3.87N	27	6	*14.7	59	37
255	S	Niagara Mohawk Power	40	1.80	4.5	*2.15Oc	18	—	*18.6	84	28
87	O	Northern Ind. P. S.	51	2.00	3.9	2.76Se	D7	6	18.5	72	37
148	S	Nor. States Power	24	1.00	4.2	1.29De	3	4	18.6	77	33
10	O	Northwestern P. S.	22	1.00	4.5	1.43Se	7	0	15.4	70	27
136	S	Ohio Edison	63	2.64	4.2	3.60De	D1	5	17.5	73	41
50	S	Oklahoma G. & E.	32	1.00	3.1	1.45N	17	5	22.1	69	30
21	O	Orange & Rockland Utils.	25	.90	3.6	*1.20De	6	15	*20.8	75	26
16	O	Otter Tail Power	33	1.60	4.8	2.26N	3	1	14.6	71	29

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501	S	Pacific G. & E.	62	2.60	4.2	3.63Se	NC	10	17.1	72	34
50	O	Pacific P. & L.	42	1.60	3.8	*2.43N	22	5	*17.3	66	28
129	S	Penn Power & Lt.	57	2.50	4.4	3.19N	D2	9	17.9	78	30
236	S	Phila. Elec.	50	2.24	4.5	*2.78Oc	10	4	*18.0	81	39
36	O	Portland Gen. Elec.	30	1.20	4.0	1.82N	6	8	16.5	66	37
69	S	Potomac Elec. Pr.	28	1.20	4.3	*1.55Se	NC	3	*18.0	77	32
91	S	Pub. Serv. of Colo.	54	1.90k	3.5	2.46Se	D13	7	22.0	77	36
322	S	Pub. Serv. E. & G.	40	1.80	4.5	2.14De	D6	3	18.7	84	34
79	S	Pub. Serv. of Ind.	46	2.10	4.6	2.90N	7	3	15.9	72	38
32	O	Pub. Serv. of N. H.	21	1.00	4.8	1.23N	D10	6	17.1	81	36
13	O	Pub. Serv. of N. M.	30	.80g	2.7	1.32Se	15	8	22.7	61	35
27	S	Puget Sound P. & L.	35	1.44	4.1	*1.92Se	8	16	*18.2	75	50
60	S	Rochester G. & E.	41	1.80	4.4	2.58De	14	2	15.9	70	32
8	S	St. Joseph L. & P.	32	1.50	4.7	1.90Se	D6	8	16.8	80	32
54	S	San Diego G. & E.	28	.96	3.4	1.23N	D11	D	22.8	79	36
10	O	Savannah E. & P.	31	1.00	3.2	1.46De	7	25	21.1	68	30
10	O	Sierra Pacific Pr.	34	1.40	4.1	1.96N	—	12	17.3	71	30
217	S	So. Calif. Edison	61	2.60	4.3	3.64Oc	NA	D	16.8	71	33
46	S	So. Carolina E. & G.	35	1.20	3.4	1.89N	22	15	18.5	63	35
7	O	Southern Colo. Pr.	21	.90	4.3	1.48Au	13	8	14.2	61	38
255	S	Southern Co.	36	1.30	3.6	1.81De	10	8	19.9	72	32
19	S	So. Indiana G. & E.	36	1.60	4.4	2.39N	2	2	15.1	67	37
7	O	So. Nevada Power	27	1.00	3.7	1.55N	3	9	17.4	65	40
3	O	Southwestern E. S.	19	.64	3.4	.95N	7	6	20.0	67	27
44	S	Southwestern P. S.	42	1.48	3.5	1.80N	2	3	23.3	82	36
30	A	Tampa Elec.	46	1.20	2.6	1.78De	8	11	25.8	67	35
155	S	Texas Utilities	65	1.76	2.7	2.73N	8	13	23.8	64	40
42	S	Toledo Edison	17	.70	4.1	1.10Se	11	—	15.5	64	31
16	O	Tucson G. E. L. & P.	31	.76	2.5	1.22Se	11	15	25.4	62	35
129	S	Union Elec. of Mo.	34	1.52	4.5	*1.66Se	D1	7	*20.4	92	32
36	O	United Illuminating	30	1.60	5.3	1.65Oc	4	2	18.2	97	48
6	O	Upper Peninsula Pr.	33	1.60	4.8	1.64Se	D16	8	20.1	97	31
43	S	Utah Power & Light	37	1.20	3.2	1.76N	D2	8	21.0	68	42
130	S	Virginia E. & P.	38	1.10	2.9	1.65N	9	15	23.0	67	37
31	S	Wash. Water Pr.	46	2.00	4.3	*2.30N	D6	9	*20.0	87	36
140	S	West Penn Elec.	37	1.50	4.1	2.25De	3	6	16.4	67	32
77	O	West Penn Power	56	2.40	4.3	3.27Se	D1	6	17.1	73	36
12	O	Western Lt. & Tel.	42	2.00	4.8	2.81N	2	7	14.9	71	38
28	O	Western Mass. Cos.	54	2.20	4.1	3.32N	3	8	16.3	66	49
114	S	Wisc. Elec. Pr. (Cons.)	40	1.60	4.0	2.20Se	D11	0	18.2	73	36
43	O	Wisconsin P. & L.	34	1.36	4.0	1.97Se	—	4	17.3	69	40
40	S	Wisconsin P. S.	27	1.20	4.4	1.74Oc	6	5	15.5	69	38
		Average			4.0%		5%	7%	18.4	71%	
		Foreign Companies									
215	S	Amer. & Foreign Power	19	$1.00	5.3%	$1.98Se	14%	0	9.6	51%	44%
170	A	Brazilian Traction	7	.25	3.6	1.52D'57	D30	0	4.6	16	75
75	A	British Col. Pr.	42	1.40	3.3	2.33D'57	—	15%	18.0	60	28
20	O	Calgary Power	83	2.00	2.4	4.55N	16	24	18.2	44	27
18	A	Gatineau Power	40	1.50	3.8	2.39D'57	5	10	16.7	63	33
42	O	Mexican L. & P.	15	1.00b	6.7	1.96D'57	17	24	7.7	51	46
14	A	Quebec Power	39	1.60	4.1	2.17D'57	8	14	18.0	74	53
63	A	Shawinigan Water & Pr.	34	.68	2.0	1.48D'57	5	26	23.0	46	37

*Deferred taxes resulting from liberalized depreciation are not normalized. If they had been normalized the price-earnings ratio would be higher. **On average shares. †Stock dividends (only) are paid on the "A" shares. D—Decrease. NC—Not comparable. A—American Stock Exchange. O—Over-counter or out-of-town exchange. S—New York Stock Exchange. Ja—January; F—February; Ma—March; Ap—April; My—May; Je—June; Jy—July; Au—August; Se—September; Oc—October; N—November; De—December. b—Also 5 per cent stock dividend May 1, 1958. c—Also 5 per cent stock dividend March 10, 1958. f—Also stock dividend of one-half per cent quarterly. g—Also 5 per cent stock dividend July 1, 1958. h—Also 2 per cent stock dividend November 20, 1958, included in the yield. i—Also 15 per cent stock dividend (subject to approval). j—Also 3 per cent stock dividend (paid each year end) included in yield. k—Also 5 per cent stock dividend payable February 20, 1959. l—Includes 6 cents extra. NA—Not available.

What Others Think

Bell and the National Defense

THE part the Bell system is playing in national defense was the subject of a recent address to the New York Chamber of Commerce by Frederick R. Kappel, president of American Telephone and Telegraph Company.

Two words—speed and control—describe the essence of a modern communication system. Anyone who uses the telephone is aware of the speed. However, the control factor is just as important. The electrical path, said Kappel, must be precisely controlled throughout its whole length. Also, the right path must be selected out of countless possibilities, and this too is control.

The speed of control is vital; that is to say, command must be exercised almost constantly over vast distances. Hence the arts of communication are called on to the limit.

Kappel summed up the overall telephone network picture as follows:

> . . . The Bell system operates over 100 million miles of circuits within cities and more than 60 million miles between cities. Every last inch can be linked together and the network also connects with the lines of other telephone companies. Moreover the intercity lines are diversified so that we have more than one route between principal cities and very often several.
>
> Just as important, we also have alternate routes *around* cities. For example, there are several routes around New York.
>
> What is the point of this? The point is to protect the communication system so that we can handle emergency messages under any circumstances whatever. With this in mind, in recent years we have built thousands of miles of cross-country lines that do not traverse critical target areas but skirt by them at a good distance. One such "express" route goes all the way from Maine to California. In other cases we have built communication arcs or circles around big cities. These connect with already existing routes in outlying areas. As a result calls can be made between any two major cities in the country without going through any of the most critical target areas.

THIS diversity, the Bell president said, is a prime asset to insure uninterrupted communication — control — command. If any control system, civil or military, depends on a single communication facility which is separate from all the rest, then its destruction leaves no option. The communications it was intended to provide are gone, period. What is essential is that all facilities be integrated, so that if one part is lost another can be used.

A second essential noted was the operating know-how of hundreds of thousands of telephone people. Like the facilities they build and operate, they too are spread all over the map, and their skill and devotion are always "at the ready" to keep the service going. Within the big total network today are numerous special networks serving military and other defense agencies. These cover hundreds of thousands of miles of route and their circuit mileage is in the millions.

Some are voice networks, some are teletype, still others carry complex data, Kappel explained. They bring intelligence from the Distant Early Warning Line of radar stations in the Arctic—the DEW Line as it is called; they bring it from Alaska, from other radar lines in Canada, and from picket ships, Texas towers at sea, and patrolling radar planes.

Some converge on NORAD, or North American Air Defense headquarters in Colorado. Lines spreading out from NORAD alert jet fighter bases to investigate unidentified planes. (Incidentally this happens a good many times a day.)

Other networks radiate from Strategic Air Command headquarters near Omaha. These reach more than 40 SAC air bases throughout the country, with connections to others overseas. Also, SAC and NORAD headquarters are linked together by television.

STILL another network is ready twenty-four hours a day to spread general warning to the nation over 28,000 miles of voice channels. This is set up to notify 300 cities simultaneously of the location and speed of approaching aircraft, and their ETA, or estimated time of arrival, at each of 26 points in different parts of the United States.

In all these operations the need for dependability is paramount, Kappel said. The latest SAC alerting "hot line," for example, is being arranged for continuous automatic surveillance to make sure no message will ever be missed at any point.

Again, in the SAGE air defense system now under construction, dependability is an absolute "must." SAGE is a very complex thing but its purpose can be simply stated. This is to automate air defense to a very considerable degree. According to Kappel, SAGE works this way:

> The country is divided into 30 sectors, each having a so-called direction center. Radars in outlying areas scan the skies for aircraft, and data from the radars flow over telephone lines to the direction center. There a computer processes the data and tells the military what is going on. At that point command decisions are made—these are fed into the computer—and the computer's output guides and directs our defending planes, ground-to-air missiles, and so on. These directions flow *out* over telephone circuits (in the form of data) just as the information from the radars flows *in*. Also, of course, all the computers in the various sectors are interconnected.

THE SAGE system is being built for the Air Force through the joint effort of many companies. Three sectors in the Northeast, two of them centered in New York state, are now operational. The function of the telephone companies, both Bell and non-Bell, is to provide the interconnecting facilities. Every critical line must have an alternate on a different route. If one is destroyed, communication is automatically transferred to the other. Here again can be seen the importance of having more than one string to your bow. In fact, the SAGE system was deliberately

designed by the Lincoln Laboratory at MIT to *take advantage* of the existing telephone network; and it has been commented that if the country did not already have this network, SAGE as a practical matter could hardly be brought into being.

Seagoing telephone cables are another important aspect of our defense job, Kappel continued. The first transatlantic cable was opened in September, 1956; a cable to Alaska at the end of the same year; a cable to Hawaii in 1957. A second transatlantic cable is now under construction and will go to work next fall. A cable to Puerto Rico will be ready early in 1960. Still other ocean cables are in the planning stage.

These are among the most sophisticated developments in the whole art of communications, and their importance to defense must not be overlooked. They are not subject to interruption by magnetic storms. They cannot be "jammed." They have capabilities—and once again, dependability—of a higher order than overseas radiotelephone circuits.

REFERRING again to the DEW Line of radar stations in the Arctic, Kappel said the most dramatic thing about it is that it is there—alive and alert across 3,000 miles of frozen wilderness. The Bell system was asked in December, 1954, to engineer and manage its construction. It was completed thirty-two months later—on schedule, fully tested, and ready to do its job. Kappel stated:

> To build the DEW Line men in ski planes landed where men had never been before, and shoveled landing strips for bigger planes which brought small tractors, which in turn cleared bigger strips for planes that could bring heavy tractors. Western Electric engineers devised new modes of construction to house men and equipment, supply water, store fuel, ventilate buildings, and protect against wind and fire. Bell Laboratories people, working with their fellow scientists at the Lincoln Laboratory, developed new techniques to insure reliable radar operation and dependable communication backward from the radar line. American and Canadian construction companies organized construction teams of thousands of men. All branches of the armed forces worked together to load and haul 460,000 tons of materials into the Arctic—by ship, plane, and tractor train. Western Electric and telephone company technicians installed and tested equipment. Eskimos built igloos around aircraft in need of repair. Frogmen slipped into the water to blow up ice in the way of their ships. Going over the mountains some pilots died—and some of their passengers.
>
> The human story of the DEW Line moves me every time I think of it. The same goes for the new Alaskan communication system known by the code name "White Alice." This covers 3,100 miles across some of the most rugged country in the world. From the point farthest west, on a clear day you can see Siberia about 50 miles away. We designed, engineered, and installed White Alice—again with the help of many others—and turned it over to the military last March. This is a vital communication complement to the DEW Line, and this too is alive and alert today.

KAPPEL rejected the often-heard argument that projects like this already are out of date because they do not protect us from ballistic missiles. Whatever the state of Russian progress on missiles, he said, let us not forget this: They also

have thousands of manned aircraft. The less vulnerable we are to aircraft, the more difficult their military problem and the more time they need to solve it—and the more time we have to make ourselves more strong.

Habits of work in the Bell system have considerable bearing on why Bell is asked to do certain military jobs—not only a project like the DEW Line but some others, Kappel went on to explain.

For instance, in developing and manufacturing telephone equipment, the goal has always been to get the most reliable and economical *use*—not to sell the most articles in the fastest time. This emphasis on dependability fits right in with military needs.

Again, Bell system people are accustomed to bringing a lot of things together to form complex systems. Any dial system for example is fairly complex and long-distance dialing is remarkably so. Experience of this sort is useful in creating military warning and weapon systems, which are very complex indeed.

Third, the Bell system integrates in one organization the functions of research, development, design, manufacture, and operation. Nowadays the people who have to develop and build weapon systems, and see to it that they work the way they are supposed to, are constantly knocking on the research man's door. They are always looking for new knowledge. They also need sure and certain knowledge about the materials they use. As one of our scientists puts it, "Weaponry today pushes things to the absolute limit so that only basic science can tell you when you are right."

RELATING some of Bell's defense assignments to its habits of work, Kappel cited Western Electric, which is co-ordinating construction of the SAGE system. Here as with the DEW Line you can sense the complexity. To solve it Western calls on talents of all kinds in the Bell Laboratories and the operating telephone companies. It lets contracts with architects and construction firms — works with equipment builders and the telephone companies to schedule and co-ordinate their installations—plans and carries out the final tests. These responsibilities come to Bell largely because Bell has been working for years to bring complicated things together, Kappel said.

Or take the NIKE antiaircraft guided missiles. These began with fundamental studies at Bell Laboratories requested by the Army. The first result was Nike Ajax, with a guidance system designed at the laboratories and built by Western Electric, and a missile developed by Douglas Aircraft. This was the first operational ground-to-air guided missile in the United States. Upwards of ten thousand Ajax missiles have been built and more than 200 Nike batteries are now operational—a substantial number of them, by the way, guarding New York.

Now a new Nike called Hercules is being produced. This has a much longer range and can carry nuclear warheads with the power to destroy whole fleets of planes. Conversion of Ajax batteries to Hercules batteries is well under way.

So this is a dynamic, continuously evolving situation. There is nothing static about it. And today, as part of this evolution, Bell Laboratories has been asked to develop still another Nike.

This has the name Nike Zeus. Its function is to find and destroy an attacking ICBM. In short, this is an antimissile missile. The problem it faces is almost incredible. Consider its target: A small object way out in the void of space, much smaller than an airplane and coming this

way at more than 15,000 miles an hour. From the moment this target is spotted, Nike Zeus has only a few minutes to take off, hoist itself into space, and blow the menace up.

Yet Bell people are certain this job can be done, Kappel continued. In the laboratory today they are simulating flights—thousands of them—and you can see on pen-registers the collision courses of attacker and defender. But the men developing Nike Zeus will also tell you they could not possibly have confidence in their designs without the help and assurance they get from their associates in basic research. For instance, the radars for the Zeus system are completely new in design and they use materials never before employed for such a purpose. Without exact knowledge of how these materials will behave, Bell would not dare to use them.

This illustrates the usefulness of having basic research and other functions combined in a single organization. You can move along with a speed and assurance hard to achieve otherwise.

BELL is developing a guidance system for the Titan intercontinental ballistic missile. This system is now being tested at Cape Canaveral.

The system is also providing communications for what is called BMEWS. That is the short name for a Ballistic Missile Early Warning System being developed for the Air Force. This is another project that reaches to the far North. It hardly needs saying that it calls for handling data over long distances at very high speed as well as with complete reliability.

Sometime ago Bell Laboratories designed and Western Electric built a 1,370-mile ocean cable from Cape Canaveral to Puerto Rico. This serves what is now known as the Atlantic Missile Range. The cable goes from island to island in the West Indies. Radar stations on the islands are connected to it, and the cable transmits data on missile test flights back to Canaveral.

Back in 1949 the government asked Bell to manage the Atomic Energy Commission's Sandia Laboratory in New Mexico. This has been done for more than nine years. Sandia's job is to design weapons around the nuclear explosive systems developed at other AEC laboratories, and then follow through on their production and reliability. Sandia develops fusing and firing systems, and the shape and structure of weapon casings. It does pilot manufacture and arranges for production by others. It is responsible for quality assurance. It designs handling equipment for weapon assembly and testing. It keeps watch over the stockpile to insure continuous reliability. It works out operating procedures and training manuals for the military.

THE problems involved cover the whole spectrum of research, development, production, and operation, Kappel pointed out. This in a nutshell is why Bell was asked to manage Sandia—because its organization integrates experience in all these fields and the government felt that this was what Sandia needed. Incidentally, Bell manages Sandia on a nonprofit basis.

Not much more than ten years ago three Bell Laboratories scientists—Brattain, Bardeen, and Shockley—invented the transistor. At about the same time Claude Shannon of the laboratories reasoned out through mathematical analysis what has come to be known as "information theory" or "communication theory"—a fundamental conception which makes it possible to measure the efficiency of any communication system. These discoveries, said Kappel, are bound to have decisive

influence on the whole future of communications, including military weapons and systems of command.

THIS is already happening. All guidance systems for ICBM's, for example, use transistorized computers—in fact nearly all new military computers are being designed around transistors and related devices. A computer called TRADIC, developed at Bell Laboratories, pointed the way, and successors for many different military purposes are now under development in at least ten different industrial laboratories. Zeus and Titan missile guidance systems likewise make extensive use of information theory. Transistors function in the communication equipment that ties Nike batteries together. They convert radar signals into data. They are used in a system for the Navy which permits an aircraft carrier to direct the operations of a hundred different planes simultaneously over a single radio channel. They send word back to earth from satellites in space.

These examples suggest that out of basic research in communications have come some strong reasons for hope and confidence that the country will successfully meet its military challenges, Kappel said.

Of course, the Bell system is only one organization among many that are working for defense and it does not think it has all the answers. But, said Kappel, "we do think we ought to work for the answers the government asks us to find in our particular field."

Excerpts from the Civilian Nuclear Power Report

THE report of the Advisory Committee on Reactor Policies and Programs, released last month, has provoked considerable comment, in part because it seems to pave the way for a more satisfactory co-operative effort among the AEC, Congress, and private industry. Pertinent excerpts from the report are reprinted below:

"Modern industrial civilization depends on sources of energy and the ability of science and technology to convert them to its needs. The discovery of nuclear fission just twenty years ago revealed a totally new source of energy. Discovered on the eve of war, this new power was developed in secret as a weapon of destruction to hasten victory over misguided nations seeking world conquest. Emerging from five years of catastrophic war, the world learned of uranium fission as a new source of energy already demonstrated in warfare and potentially a great addition to the world's sources of the energy so vital to the industries of peace. Uranium fission came to be regarded both as a symbol of the evils of war and as a panacea to cure all the world's ills.

"IT is inherent both in the nature of nuclear energy and in the history of its first use that its further development should concern statesmen throughout the world. In this country, the wartime developments were directed, co-ordinated, and paid for by the federal government, although the actual work was done almost entirely by industrial or nonprofit organizations under contract. Since the war the pattern has remained the same for the military aspects of nuclear energy and to a great extent also for the peaceful aspects. In recent years an attempt has been made to transfer some of this responsibility for peaceful uses to private industry. Yet the difficulties and costs of the development of nuclear power have proved so great that the federal government con-

tinues to finance and to direct a large fraction of the activity. It is proper that the purposes, costs, methods, and progress of this effort should be reviewed from time to time and that an attempt should be made to chart its future course. The present report constitutes such an attempt.

"More specifically, the committee here reporting was asked by the Atomic Energy Commission to:

(1) review the commission's civilian power program;

(2) advise the commission in connection with the formulation of a sound basic policy in the light of our current economy and the present stage of development of nuclear power technology;

(3) assist the commission in establishing new goals and redefining the problems connected with the foreseeable expansion of commercial utilization of nuclear power and the concomitant development of a vigorous nuclear equipment manufacturing industry; and

(4) recommend immediate and long-range programs to achieve the commission's new goals.

"The committee was further instructed to 'take into consideration all relevant economic, political, and international aspects, as well as the predominant technical factors involved in a viable nuclear power program based on U. S. national interests.' . . .

"As we suggested in our introductory paragraphs, the nuclear energy program in this country and elsewhere is inextricably involved in the political, economic, and military policy of governments. In this report we are not directly concerned with the military aspect of nuclear energy. By our terms of reference we are concerned directly only with the civilian nuclear power program and specifically with the rôle the Atomic Energy Commission plays in that program. We are not even concerned with the peaceful application of nuclear fission other than the production of power. Since the AEC has so far dominated the power program, we shall consider the program as a whole without attempting to segregate that part of it conducted entirely by private industry.

"If power from nuclear fission had proved to be very cheap and easily developed or, conversely, if power from conventional fuels were as expensive in this country as in some other parts of the world, private industry would have readily taken over the planning and construction of nuclear power plants. In that situation the government's rôle might have rapidly diminished to that of purveyor of nuclear materials (at least of those produced only in government plants, such as U 235, heavy water and plutonium), custodian of safety, and guardian against the illicit production of weapons.

"Since the development of nuclear power is in fact proving to be difficult and expensive, the government has been faced with a hard choice. Either this country continues its leadership at the cost of heavy expenditure or it accepts the probability that there will be no significant nuclear power industry in this country until the technology has been developed elsewhere and can be reintroduced here. This committee knows of little support for the latter alternative.

"Granted that we believe it important to proceed with the development of nuclear energy, we should define the objectives of our program and explain why such objectives are desirable. Both the AEC statement of June 3, 1958, and the

JCAE staff memorandum of August, 1958, mentioned in our terms of reference, have such statements of objectives, which differ from each other only in detail. We accept and endorse the three objectives listed in both of these documents but would like to add two others, which are explicit or implicit in the body of those statements. Before stating these three old and two new objectives in our own language, we wish to point out that all five are interrelated and that we attach little importance to the order in which we list them.

"We believe the five principal objectives of the nuclear power program in the United States are to:

(a) Fortify the position of leadership of the United States in the technology of nuclear power for civilian use;

(b) Reduce the cost of nuclear power in this country to a point competitive with power from fossil fuels at least in some areas within ten years;

(c) Reduce the cost of nuclear power to the competitive point in friendly foreign nations having high costs for energy in less than ten years through a comprehensive program of assistance clearly defined and vigorously pursued;

(d) Achieve a substantial reduction in the cost of nuclear power over the next twenty or thirty years by continuing studies which may ultimately lead to great cost reductions, but which are unlikely to bear fruit in the next ten years;

(e) Make the fullest use possible of the nuclear energy latent in both uranium and thorium, especially by breeding, recognizing that U 235 alone is probably not sufficiently plentiful to contribute significantly to our power needs over the long range.

a. *U. S. Leadership in Technology of Civilian Nuclear Power*

"THE respect this country commands in the world today results on the one hand from our devotion to peace and freedom and on the other hand from our industrial and technical strength and the prosperity and military power that spring from it. While our scientific achievements may not have been remarkable, in technology we lead the world. Although we did not discover nuclear fission, we did put it to its first use, a military use in defense of freedom. For us to fall behind in developing the civilian use of energy from nuclear fission would raise doubts as to our interest in peaceful applications of this great discovery or as to our technological competence. Only the most sympathetic and sophisticated of our friends might recognize our lack of immediate need for nuclear power.

"Some have suggested that this country has already 'fallen behind in the race for nuclear power.' This committee does not agree with such a point of view. We believe our knowledge of the technical and scientific problems of nuclear power has a breadth and depth that are unexcelled in any other country. We do not think that the number of kilowatts of installed nuclear power is a fair measure of the state of a country's nuclear technology. We are strongly opposed to a mere 'kilowatt race.' Nevertheless, we recognize the vigor of the nuclear energy activities in the United Kingdom, Russia, and elsewhere. Unless we continue to pursue a vigorous program of research and development and continue to build some power plants, we could easily fall behind.

b. *Competitive Nuclear Power in Some U. S. Areas within Ten Years*

"THE meaning of the phrase 'competitive with power from fossil

fuels at least in some areas within ten years' should be defined. We mean that within ten years utility executives facing the need for adding power stations to their systems might decide to build nuclear stations purely for economic reasons. Such a situation would not arise simultaneously in all parts of the country but first in relatively high-cost fuel areas.

"This country is fortunate in having large reserves of fossil fuels, particularly coal. Estimates of how long these fuels will last vary widely, depending as they do on predictions of increased use of fuel for electric power and other needs and of future discovery of additional reserves. How long our domestic oil reserves will last is uncertain, but in any case it is desirable to conserve them for other uses than the generation of electric power in central stations, which presently accounts for only about 3 per cent of our consumption of petroleum products. Our coal will last much longer but it is not clear whether the cost of mining and shipping it may rise considerably. Were there no hope of bringing the cost of nuclear power into the general range of present costs for power from fossil fuel, it would be a waste of money to push the development of nuclear power for domestic reasons. Since there is good reason to hope that the cost of nuclear power may decrease over the next ten or twenty years to the point where it is comparable to the cost of power from stations burning coal, a development program for domestic reasons alone is sensible, though not urgent. Whatever urgency there is in this development rises from our concern for national prestige and our desire to assist the development of nuclear power in other countries. There is, however, not a very great discrepancy between the program which might be laid out for domestic reasons alone and the program we are recommending.

c. *Competitive Nuclear Power in Some Foreign Areas in Less than Ten Years*

"EVER since President Eisenhower's speech before the United Nations in December, 1953, it has been the avowed policy of the United States to promote peaceful uses of atomic energy throughout the world. Initially it was thought that this policy might be implemented by encouraging the building of nuclear power reactors both in underdeveloped countries and in those that were highly industrialized. With the passage of time it has become apparent that nuclear power stations in underdeveloped countries are not likely to be very useful in the near future. In contrast, the desire for nuclear power in the countries of western Europe has been emphasized by the Suez Canal crisis. The Euratom agreements are a concrete recognition of these desires and of our interest in helping the nations in western Europe to meet them. We cannot carry out our international obligations and help the development of nuclear power in other countries unless we have a continuing program of our own. Nor is our co-operation with other countries a one-way street. Our technology and the strength of our atomic power industry will be enhanced by the knowledge gained from the construction and operation of nuclear power plants in areas where they are already nearly competitive with fossil-fueled plants.

d. *Reduction in Nuclear Power Costs Over Next Twenty or Thirty Years*

"A STRICT interpretation of the immediate objectives of competitive nuclear power in this country and elsewhere might lead us to concentrate on a type of power reactor which gave promise of meeting these objectives within the specified time limit. Yet there may be

other types of reactors, not now far enough along in their development to meet the ten-year time limit, which will nevertheless ultimately give cheaper power from fission than those currently available. For this reason, our committee has added the explicit objective of ultimate low cost. We think this objective is implied in both the AEC and JCAE programs, but we have heard the suggestion made that work on all types other than the one or two now well advanced should be dropped. Since we believe this would be a mistake, we will include in our program recommendations for work on certain types of reactors that we can hardly hope will be in general use within ten years.

e. *Fullest Possible Use of Nuclear Energy Latent in Uranium and Thorium*

"IT is obvious that there would be no point in developing nuclear power if the supply of uranium were so scanty that it would run out after a few years' operation of a few full-scale power plants. The known reserves of uranium have increased greatly in the last five years. Estimates of the future increase in these reserves are even more uncertain than similar estimates for coal and oil. If we assume that a large fraction of the new power plants built after 1970 are nuclear plants and that our total needs for electric power increase as they have been recently, then the total nuclear capacity by 1980 or 1990 would be approximately equal to our present capacity for producing power from fossil fuel. If such plants depended on U 235 alone and if we confine ourselves to uranium that can be recovered at approximately the present prices, United States reserves of uranium might begin to run out in a few decades.

"In principle, we know that it is possible to use the far more plentiful U 238 for power and also thorium. We know also that this can be done effectively only by the development of breeder reactors and that such development is extremely difficult. Consequently, we feel that the development of breeder reactors should be pushed vigorously, since otherwise we might find ourselves faced with a shortage of fissionable material by the year 2000. Successful breeding is the equivalent of multiplying our reserves by a large factor, which could be as high as 50 or 100, and should have a further consequence of lowering costs since all the nuclei in a pound of natural uranium would be potential fuel instead of only 1 or 2 per cent.

"WE would like to point out two corollaries to this conservation objective. The first is that obviously U 238 tailings from nuclear power plants as well as from diffusion plants should be stored in the hope that they might eventually be used as fuel. The second corollary is the desirability of neutron economy in the design of power plants. Neutrons lost by absorption in the moderator, coolant, or structural material can never be recovered, and constitute a waste of natural resources. In the interests of lowering costs or improving safety it may be necessary to use absorbing materials in reactors, but the basic importance of neutron economy should always be borne in mind.

"At present the financing of nuclear power plants usually involves some form of direct or indirect assistance. It is important that the form of this assistance should not artificially encourage the use of absorbing materials at the cost of neutron economy. For example, the waiving of a use charge for nuclear fuel encourages the designer to use cheap materials

in the reactor itself to keep down the unsubsidized capital cost and in the fuel elements to keep down the operating cost, even though such materials may be bad from the point of view of neutron economy and therefore waste the nuclear fuel.

"As was suggested at the beginning of our statement of the general objectives for the U. S. nuclear power program, they are to a large degree interrelated. Certainly the maintenance of U. S. technological leadership depends on success in reaching several or all of the other four objectives listed. Objectives (b), (c), and (d), and even to some extent (e), are directed at lowering the cost of nuclear power although for different specific purposes and with different time schedules.

"At present, nuclear power is too expensive both in terms of the capital costs of the plants and in terms of operating costs, including those of the fuel cycle. There is general agreement among reactor experts that both costs can and must be lowered. In the next section we will review various technical goals that might lead to the lowering of one or the other of these major cost items. The most optimistic estimates of capital costs per kilowatt for large nuclear power plants presently range from $250 to $500 compared to the range of $125 to $200 per kilowatt of capacity for conventional plants using fossil fuels.

"Operating costs vary even more greatly than capital costs with the type of plant and especially with the type of fuel cycle involved. They also depend greatly on the financial arrangements made for the fuel and on the value assigned to plutonium recoverable from the fuel. The cost of uranium itself is a major factor in the fuel cycle cost. In comparing cost estimates made by different groups both in this country and abroad, extreme care must be used in examining the accounting assumptions.

"The fact that some governments in Europe finance the capital costs of power plants leads to low fixed charges and tends to emphasize low operating costs at the expense of high capital investment. There are other factors that affect costs differently in this country and abroad. For example, the relatively low cost of labor in Europe may favor plants that require a great deal of field fabrication compared to central shop fabrication.

"Political factors also are relevant to the choice of the type of reactor to be built abroad as compared to this country. Some countries have been reluctant to use enriched uranium and heavy water because of the dependence on the United States for these materials which such a choice presently entails. This reluctance seems to have diminished somewhat in the last year or two but may still be present to some extent. . . .

"In the preceding parts of this report we have defined the objectives of a United States nuclear power program and identified the kinds of knowledge required to reach these objectives and the various lines of work to be pursued in seeking this knowledge. We have appraised the present status of the program, both in general terms and in terms of specific types of reactors, and have made a number of specific suggestions for the immediate future. We have not put forward a specific program of reactor construction to be carried out over a period of eight or ten years.

"In the development of a new technology like that of nuclear power, different types of activity dominate at different times. The period following the establish-

ment of the five-year reactor program of 1954 and of the 'power demonstration' program has been dominated by construction, much of which is still under way. The first fruits of this period, results from the EBR-I, SRE, EBWR, HRE-II, OMRE, and Shippingport, are now coming in but are still very incomplete. The present time is primarily a period of reassessment, as is illustrated by the number of specific reactor studies under way and by the series of general program studies appearing during 1958. We think it particularly difficult so early in this present period of reassessment to lay down a long-range program of construction of reactors specified as to type, size, and timing. We might feel it necessary to do so were there not four such lists already available for comment. As it is, we do not wish to encourage a kind of Gallup poll as a method of determining a reactor program. Such lists are too likely to be quoted out of context and to impart a rigidity to the program which is neither intended nor desired.

"THESE four lists, all appearing in 1958, have emanated from the Edison Electric Institute, the Atomic Energy Commission, the Joint Committee on Atomic Energy, and the General Electric Company, and are compared in the December issue of the *Forum Memo* published by the Atomic Industrial Forum. Although the General Electric report recognizes the desirability of developing other types of reactors, the list given is confined to boiling water reactors and is therefore too limited to serve our purpose. There seems to be no serious inconsistencies among the other three lists if they are considered in the context of the assumptions and comments carried in the documents which present them. All are recognized as tentative and frequent reconsideration is urged in each document. In all three cases it is recognized that some of the suggested reactors will be eliminated from the program on the basis of further information.

"BY our terms of reference we are asked to include both the AEC statement and the JCAE staff memorandum in our considerations. The review of the technical program in §§ 4, 5, 6, and 7 of our report was prepared deliberately without reference to these documents. The general similarity between the present document and those of the AEC and the JCAE staff arises, therefore, from the state of the technology. In the remainder of this report, as in §§ 1 and 2, we shall make frequent reference to the AEC statement or to the JCAE memorandum. In general, we like them both and find them compatible with each other and with our own views. We shall identify specific areas in which we disagree with them.

"We find the types of reactors listed as worthy of consideration in these two documents (and also in the EEI report) are generally consistent with our own views. Since the JCAE memorandum is somewhat more specific for the long range, since it contains cost estimates, and since comments on it from many sources are available to us, we will refer principally to it in the remainder of this section and the following sections.

"AS to the technical program in the JCAE memorandum, we differ from it in two respects. We would put greater emphasis on breeding and greater emphasis on prototype plants compared to large-scale plants. We believe that the information obtainable from so-called second or third generation power plants of some 200 EMW capacity can be obtained more quickly and more cheaply from sec-

ond or third generation prototype plants of capacity up to about 80 EMW. We think the need for demonstrating the feasibility of large-scale nuclear power plants has passed and such plants should be built only when their costs are low enough to be acceptable to utilities. If such a stage were reached soon enough to meet the time schedule set by the JCAE report for 200 EMW plants, we would be pleased though surprised in some cases.

"It should be understood that such a stage has arrived or is near at hand in western Europe, a fact that reduces still further the need of large plants in this country. We shall return to this question of large-scale plants in our discussion of administrative implementation.

"The JCAE program envisaged the construction of approximately a million kilowatts capacity of nuclear power in the next seven years or so. Our proposed emphasis on prototypes would reduce this to perhaps as low as 500,000 kilowatts. Additional capacity may be financed and built by utilities before the end of that period, thereby increasing the total capacity. Our committee would welcome such construction.

"THE JCAE staff memorandum estimates a total cost, exclusive of laboratory support facilities, for its proposed program of $250 to $275 million a year. About half of this would be for general reactor research and development and the other half for design and construction of specific reactors. These estimates are based on the assumption that a total capacity of about one million electrical kilowatts would be built in seven years. Design costs are included for those reactors actually built and also for those dropped at a late stage on the basis of detailed assessment of cost and value. It must be emphasized that this is total cost, not government cost.

"If prototypes of average size of 50 EMW are substituted for the 200 EMW plants in the JCAE program, the estimated total cost might be reduced by about $50 million a year and then become $200 to $225 million a year. How much of this would have to be carried by the federal government, it is impossible to say. Private industry might make a considerable contribution to the costs of construction of prototype plants, but probably most of the design studies for systems not built and most of the research and development would have to be paid for by the federal government. Between $150 and $200 million a year is the best guess we can make for the cost to the federal government. This does not include the costs of laboratory support facilities or of the Euratom program. Since the corresponding AEC expenditures for the current fiscal year are estimated to be about $190 million, we believe the proposals in the JCAE memorandum and the present report should be called revised programs, not expanded programs, from the national standpoint.

"THE type of program we have outlined seems to us consistent with the present state of the technology and with the probable attainment of the stated objectives. It might be speeded up somewhat by greater expenditure, but we doubt whether this is necessary for the immediate objectives and we believe it might be undesirable for the ultimate objective of really cheap nuclear power produced in plants built and operated by publicly and privately owned utilities in the accepted pattern of power production. Furthermore, we think a 'crash' program might distort the technology and waste nuclear fuel.

"It is not yet possible for the federal government to divest itself of the responsibility for the development of nuclear power technology. To attain the objectives we have stated, the federal government must exert positive leadership. More specifically, the AEC must exert positive leadership and must be recognized as responsible for technical decisions. We approve the modification that the AEC has recently made in the power demonstration program as announced in the following statement:

> In conformance with recently enacted legislation, the third invitation is further modified to provide that the commission, prior to entering into any new agreements under the Power Demonstration Reactor Program, will make public announcements inviting proposals for reactors it considers technically desirable for construction. . . . Previously, under the terms of the third invitation, there was no limitation on the type or size of nuclear power plants which might be proposed, except that they must give promise of making a significant contribution toward achievement of commercial nuclear power. Now, however, such proposals must be responsive to the type of project specified in the invitation.

"Such a system should not discourage industrial initiative. It is always possible and desirable for industry to make suggestions which may lead to an invitation for a particular reactor system. In fact, the AEC later in the same announcement gives specific assurance on this point.

"WE find little to criticize in the general philosophy expressed in the concluding sections of the JCAE staff memorandum beginning with the section headed, 'Organization and Administration of Program.' We agree with the first sentence of that section which reads, 'Since the United States government considers the objectives of this program of great importance from a national and international standpoint, the Atomic Energy Commission must provide positive leadership to make certain the objectives are achieved in terms of practical results.' We agree also with the first two sentences of the next section which read: 'Projects wholly financed by private enterprise should be encouraged to the fullest extent possible. It should be recognized, however, during this transition period probably not many such plants will be built.'

"WE agree that the AEC should continue to be responsible 'for the conduct of the base program of research and development through its national laboratories, industrial contractors, universities, and nonprofit institutions.' We agree that the AEC should assume 'positive direction of the reactor development program from the stage of feasibility studies of promising reactor concepts, through the necessary reactor experiments, up through the construction and operation of experimental prototype reactors.' We share the hope implied later in the JCAE memorandum that at least some prototypes will be wholly or partly financed by industry. If the AEC contributes a significant part of the cost of such prototypes the AEC should have sufficient control of their operation to insure that they produce the maximum of information. That is their principal purpose.

". . . the committee here reporting does not agree with the JCAE staff recommendation on large-scale plants. Even here we believe our disagreement is not as basic as it might at first appear. We can probably express our point of view best by an example. If the AEC decided

two years from now that a large-scale plant of a certain type should be built, announcement to that effect would be made and proposals solicited as outlined in the JCAE staff memorandum. According to the JCAE memorandum, if no satisfactory proposals were made for construction financed by a public or private utility 'the commission would undertake responsibility for the completion of design and construction of the project if it were still deemed desirable.' The attitude of our committee would be that the absence of a proposal was prima facie evidence that the time had not yet come to build a large-scale plant of the particular type proposed and that the invitation had better be reshaped, possibly to call for a smaller prototype, or be withdrawn.

"For prototype plants we accept the possibility of AEC construction and ownership, but when possible prefer private financing and ownership with whatever degree of assistance may be necessary, provided that the AEC retains sufficient control to operate or change the plants in order to obtain technical information.

"As to the various forms of financial assistance now permitted and enumerated in the JCAE memorandum, we think they should be recognized as expenditures by the government for the purpose of developing technology. Nor do we have any objection to a capital grant such as has been proposed at various times if a form of grant can be devised which encourages economy and efficiency. Such a scheme should also minimize distortion of technology. Conceivably a combination of capital grant and low charge for fuel could be worked out which would distort the technology less than either by itself. Assistance on research and development should be just that and not extend into core or fuel element fabrication.

"We have expressed opposition in general to construction subsidies for additional large-scale nuclear power plants, and we are skeptical of the need for such plants before costs are substantially reduced. However, we do not wish to preclude government assistance if the major portion of the construction is financed by utilities, and if a net saving in overall effort can be accomplished thereby. We hope that even prototype reactors can be built with a minimum of assistance, but we are prepared to accept government funding and ownership if need be.

"We have nothing to add to the suggestions put forward in the JCAE staff memorandum for assistance on foreign programs. We have not examined the Euratom arrangements in detail, but we would like to express general approval of the actions in this area by both the executive and legislative branches of the government. We also approve continued cooperation with and support of the International Atomic Energy Agency and other international programs. Reactor development will be accelerated as various groups try different approaches under different economic conditions and fully exchange the information that results.

"Many technical obstacles must be overcome before nuclear power can be competitive with power from fossil fuels and its further development carried forward in our normal pattern of technical progress. Success in the period of transition that lies before us requires the wholehearted co-operation of the AEC, the JCAE, and industry. . . ."

The March of Events

AEC Signs Atom Plant Contract

THE Atomic Energy Commission has signed a contract with four utilities to build a 17,000-kilowatt nuclear power plant at Parr, South Carolina.

Under the contract, the utility group, known as Carolinas Virginia Nuclear Power Associates, will pay capital costs estimated at about $22 million and the commission will contribute a maximum of $15,075,000 in research and development, fuel, and heavy water costs for the five years of the plant's operation.

The associated companies comprising the group are Duke Power Company, Charlotte, North Carolina; South Carolina Electric & Gas Company, Columbia, South Carolina; Carolina Power & Light Company, Raleigh, North Carolina; and Virginia Electric & Power Company, Richmond, Virginia.

Could Wipe out BPA Deficit

IF the Bonneville Power Administration were to sell surplus power to California, it would probably wipe out expected deficits over the next ten years. This is the contention of Sol E. Schultz, former BPA employee, who as a member of a consulting firm is investigating the state's power prospects and probable costs. Schultz also said that if an intertie line to California had been operating in the last five years, its $16 million cost would have been paid for. Such a line, he pointed out, would also enable BPA to get power from California when the Pacific Northwest needed it.

In the early 1950's a line to California was first proposed by the Reclamation Bureau and in 1953 was favorably reported on by the Federal Power Commission. (See California, page 269.)

UAW Pursues Atom Case

THE United Auto Workers Union has filed exceptions to an Atomic Energy Commission decision that gave provisional approval of construction of a $75.3 million nuclear power plant near Monroe, Michigan. In December, 1958, the commission rejected the union's arguments that construction of the plant should be halted until its safety could be proved. The AEC did, however, offer assurance that the plant would not be permitted to go into operation until there was reasonable expectation of safety.

Now it appears the UAW is intent on taking the case out of the commission's hands and into the federal courts.

The nuclear plant whose construction the UAW objects to is a project of a group of private companies headed by the Detroit Edison Company.

Alabama

Seeks Pipeline Permit

THE Southern Natural Gas Company of Birmingham has applied to the Federal Power Commission for permission to build a natural gas pipeline from gas fields in Louisiana and Mississippi to consuming areas of the Southeast.

The proposed project would cost $52,260,000 and would consist of 461 miles of main line and 226 miles of lateral lines.

The president of Southern said at an FPC hearing that the expansion would enable his company to meet peak consumption needs of its customers in the winter of 1960-61, would boost delivery to its present customers, and make possible service at three new points.

The Southern Company also is seeking FPC authority to buy natural gas in the Crain field and Lake St. John fields of the California Company of New Orleans and to sell natural gas to Georgia Coastal Natural Gas Corporation.

Alaska

Public Power Gets Boost

A FORMER governor of Alaska, B. Frank Heintzleman, is thinking in terms of public power for the 49th state. Speaking at a meeting of the Municipal Forum of New York, he said presently there are only three political bodies which can issue bonds in Alaska. They are municipalities, boroughs (which are the equivalent of counties), and the state itself. He said it is highly probable that the new state of Alaska will use the vehicle of the public utility district for the development of electric power needed for growth.

Heintzleman declared that the boroughs in some cases might be adapted to public utility districts which would issue bonds to finance public power development.

California

May Buy BPA Surplus Power

THE Pacific Gas and Electric Company has expressed interest in buying surplus power from the Bonneville Power Administration and there are prospects for negotiations toward such a plan, according to BPA Administrator William A. Pearl.

In order to buy the power from BPA, PG&E would have to build intertie lines to a connection with Bonneville's lines in southern Oregon. Farthest south extension of BPA's 230,000-volt grid now ends at Yamsay in Klamath county, 70 miles from the Oregon-California border. It is another 50 miles south to PG&E's nearest 230,000-volt line.

It is estimated by BPA that a 230,000-volt tie with PG&E could transmit one billion kilowatt-hours annually to California at a cost of $2.5 million a year.

Pacific Gas and Electric would use the power to replace more expensive steam-generated power.

Sale of its surplus power to California was recommended in a recent report.

Indiana

Co-ops Seek More Powers

A BILL has been introduced in the Indiana legislature by Representative Paul Myers that would permit rural electric membership corporations to form joint corporations with municipalities to

share the cost of generating power and reselling it to co-op members. The rates would be set by the governing board of the new corporation without approval of the state public service commission. Co-op members, however, could petition the PSC for a study of charges if they were dissatisfied with rates. Present law requires co-ops to submit proposed rates to the commission for approval.

Commission Chairman John W. Van Ness said that the bill would permit the co-op to extend its jurisdiction into cities and towns, which is presently forbidden by the federal government. Were the bill to become law, he added, it would mean that the commission would have the authority to regulate privately owned electric utilities but not the competing tax-subsidized co-ops.

Maryland

Seeks Gas Storage OK

THE Washington Gas Light Company is preparing to make a third attempt to have a law introduced in the Maryland legislature that will clear the way for it to build an underground storage project in southern Prince Georges county.

The company will ask six delegates from Prince Georges county to sponsor a bill that will give Washington Gas Light "eminent domain" privileges in the 10,000-acre tract near Brandywine where geologists have discovered a subterranean dome.

The law is needed to give the company the right to force about 35 property owners to terms for storing gas under their land.

The storage area sought by the company will enable it to store up to 30 billion cubic feet of gas 800 feet below the surface. About $2 million a year could be saved, the company believes, by purchasing gas during the summer months when consumption is low and wholesale prices cheaper, then drawing on it for local use in high consumption periods. To build conventional storage facilities comparable to the underground dome would cost up to $250 million.

Missouri

Seek Utility Law Repeal

AT a hearing before the state house labor committee in Jefferson City, union spokesmen called for a repeal of the King-Thompson utility no-strike law, terming it a vicious measure and asserting it has caused an increase in strikes.

One union official said the law is one-sided in favor of utilities and has destroyed the collective bargaining rights of thousands of public utility workers in Missouri.

The president of the Missouri State Labor Council, John I. Rollings, emphasized that every day the law remains on the books it is breeding contempt for law.

He said the act has failed to prevent work stoppages in essential public services and has caused more strikes since its enactment in 1947 than there were in the twenty preceding years. Rollings termed the law restrictive and discriminatory against labor.

While there are heavy penalties against utility workers, their local unions and officials, for violation of the law, union spokesmen said there are no effective penalties against management to require it to bargain with employees in good faith.

New Jersey

Temporary Gas Hike

WHILE hearings were in progress for rate rises in the amounts of $14,916,400 for gas and $21.4 million for electricity applied for by the Public Service Electric & Gas Company, a temporary increase of $10 million was asked for. However, the New Jersey State Board of Public Utility Commissioners granted only a $3.5 million emergency hike in gas rates. After taxes, Commissioner Ralph L. Fusco estimated that the company would realize a net increase of $1,470,000, which would give an approximate rate of return of 5.85 per cent for the overall operations. This rate is not considered unreasonable in view of present conditions, the commissioner stated. The company presently earns 5.70 per cent.

Should the utility board ultimately determine that the temporary increase in revenue is excessive or unwarranted, Public Service will have to refund all or such part of the increase as shall be designated by the commissioners.

Company President Donald C. Luce maintained that the increases sought are imperative to the company's financial welfare, inasmuch as they would help obtain a favorable interest rate in raising money for the company's development.

New York

Indians Willing to Sell

AFTER a long battle by the Tuscarora Indians to prevent the New York State Power Authority from acquiring their reservation for a Niagara power project storage reservoir, negotiations are under way through the tribal council's lawyers to effectuate a sale.

The initial bid of the state for the land was $2.5 million with fringe benefits that included free electricity, moving or replacement of homes that would be displaced, and drainage of swamp areas on the remaining reservation land. The state estimated these extra benefits to be worth $800,000.

The Tuscaroras put their asking price at $3 million, however. So the state of New York made a counteroffer which said it would meet the $3 million price and which agreed to other matters asked by the Indians except for swamp drainage and free electricity. Chief of the Tuscaroras, Elton Greene, declared the offer was interesting, but said he would have to study the matter further. For approval, the proposal would have to win the vote of a majority of the 300 adult Tuscaroras and then be passed on by the 14-man council of chiefs.

Transit Power Hearing Set

A PUBLIC hearing on the proposed sale of New York city's rapid transit power plants to the Consolidated Edison Company has been set for February 20th by the Board of Estimate. City Administrator Charles F. Preusse, the Citizens Union, and other civic and industrial organizations are back of the plan. The Transit Authority, which operates the city-owned transit system, has neither condemned nor approved the idea. Actually, the authority stands to receive a return of about $5 million a year if the deal is consummated. Opposed to the sale are the Transport Workers Union, which stands to lose 1,500 dues payers, the Liberal party, and other groups.

Consolidated Edison's most recent pur-

chase offer was made last March when the utility said it would pay $82 million for the three powerhouses, plus all sums laid out by the city in a vast modernization program from November 15, 1957, to the date of transfer. Con Ed would also relieve the city of modernization contracts now in force at a cost of $41 million.

Oregon

New Revenue Bond Bill For PUD's

A MEASURE has been introduced in the Oregon legislature by Senator Ben Musa which would permit boards of peoples utility districts to issue and sell revenue bonds without obtaining the presently required vote of the people.

It was said that this amendment to the law will facilitate PUD operations and put them in a better competitive position with private utilities. At present the law requires voter approval before a PUD can issue or sell either revenue bonds or general obligation bonds. Senator Andrew J. Naterlin said there are precedents in Oregon for permitting taxing authorities to issue revenue bonds without a vote of popular approval. He pointed out that the proposed amendment would also bring Oregon law into conformity with Washington law and would save district election costs.

Commissioner Appointed

JONEL HILL, 33-year-old administrative assistant to the chief justice for the past five years, was appointed by Governor Mark Hatfield last month as state public utilities commissioner. He succeeded Howard Morgan, who resigned on January 12th with the change from the Democratic to a Republican state administration.

Hill's appointment would become effective as soon as the supreme court finds a new administrative assistant.

Washington

Power Rate Increase Suspended

THE state public service commission last month ordered the Pacific Power & Light Company to suspend planned power rate increases in the Yakima and Walla Walla areas pending a public hearing by the commission on the proposed new tariffs.

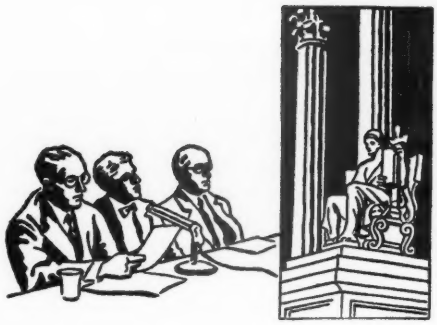
The company announced its intention in December to increase electric rates in the Yakima and Walla Walla areas by about $1 million a year, an increase of approximately 10 per cent.

Wisconsin

Co-op Hails Rate Cuts

JOHN P. MADGETT, general manager of Dairyland Power Co-operative of La Crosse, has announced his company has been able to reduce the price of electricity nine times in eleven years, despite inflation. While costs went up 30 per cent in the 11-year period, he said the average net cost of electricity was lowered to the 26 member distribution co-operatives. In 1958 Dairyland Co-op set a record for kilowatt-hour sales, dispensing 735 million kilowatt-hours. The company's gross revenue was $8.5 million—an increase of 9 per cent over the year before.

The average consumption of electric power per farm member per month was about 545 kilowatt-hours, compared with 1957 average of 513 kilowatt-hours. These figures, Madgett said, are about double that of the average residential user in American cities.



Progress of Regulation

Trends and Topics

Recent Views on Advertising Expense

ADVERTISING expense is a continuing issue before the regulatory authorities. While reasonable expenditures for advertising are generally allowed for rate-making purposes, it is apparent that many factors, varying with individual companies, must be considered in determining what is reasonable in a particular case. The degree of competition which a company faces might bear appreciably upon the question, and the results of an advertising program, among other factors, may be weighed into the reasonableness of such expenditures.

How far does managerial discretion extend with respect to the level of advertising expense that may be allowed in a rate proceeding? This question was recently before the Maine supreme court (21 PUR3d 321) on appeal from a commission decision which disallowed most of an electric company's claim for advertising expense (17 PUR3d 452). A number of decisions relating to advertising expense, along with the Maine opinion, have been handed down since the discussion of this subject in the FORTNIGHTLY, February 28, 1957, page 345.

The Competitive Factor and Company Discretion

In the Maine case, the company had claimed a substantial sum spent in 1956 for sales promotion, contending that this expenditure was justified for the purpose of creating a demand for electric power. It appeared, however, that the demand for power was so great that the company could hardly keep abreast of it. Assuming this to be the case, the commission inquired whether there was any need for stimulating a demand already realized. It was noted that the company had a monopoly of the sale of electric energy, with practically no competition from gas. The commission, therefore, struck out most of the claim, finding that much of the expenditure consisted of institutional advertising, appliance merchandising programs, good-will programs, and even advertising for a rate increase. Specifically, it struck out the total expense of

the company's commercial department and allowed the expenses of the industrial development department, along with the expenses for public relations, less items for institutional advertising and display.

Generally speaking, said the court, promotional expenses of this nature may properly be charged to operations. The court took the view that the commission had unreasonably substituted its judgment for that of management. The company had been allowed less than half of its experienced expense for promotional needs. To place such a reduction chiefly on the ground that an expanding utility should so severely reduce expense of this type is clearly a substitution of the commission for the company in the management of the utility, said the court.

Quoting from a United States Supreme Court decision (6 PUR NS 449), the court indicated that good faith is to be presumed on the part of management and that advertising or development expenses to foster normal growth are, within the limits of reason, legitimate charges upon income for ratemaking purposes. The Maine court pointed out that the commission's function is that of control and not management, and that regulation should not obtrude itself into the place of management. The question, said the court, is whether it clearly appears that claimed expenses are excessive or unwarranted.

In denying a rate increase sought by an electric company, the North Dakota commission expressed a view in keeping with the Maine commission (22 PUR3d 505). "It is difficult to see why any substantial amount of promotional advertising expense is required by a regulated public utility," said the commission. Evidence indicated that the company enjoyed a monopoly of the sale of electric energy in its territory and held a natural gas franchise for the same area. Demand was so great that the company was forced to construct new plants and, consequently, seek an increase in rates. As with the Maine commission, the North Dakota commission thought it reasonable to inquire whether there was any need to stimulate a demand already realized. While it recognized that part of the expense was justified, it took the position that a substantial amount should be charged to merchandising since the company was engaged in merchandising.

Very recently the California commission reduced a claim for sales promotion expense, "realizing that this is a combination gas and electric company not too much concerned as to the intense competition as between gas and electric appliances in new homes" (26 PUR3d 129).

Results of Expenditures Considered

A natural gas company seeking a rate increase before the Federal Power Commission was allowed only the actual amount expended for advertising during the test year, even though it had expended a much larger sum for that purpose in the first full calendar year following the inauguration of a current advertising program (20 PUR3d 498). The presiding examiner had disallowed the entire claim on the ground that no facts or data established that the advertising had resulted in any reduced costs of financing or lower rate of return for the company. He considered that it would not be proper to reflect in the

cost of service these expenses when test-year revenues had not been adjusted upward correspondingly to reflect increased sales expected to result from such advertising expenses.

Such criteria, the commission pointed out, would make it difficult if not impossible for a company ever to sustain any advertising expenditures. The commission found the actual expenditure a reasonable amount, "on consideration of the amounts involved in relation to the magnitude of the company's operations, the extent of advertising expenditures in the past by utilities generally in relation to the size of operations, the nature and object of the advertising expenses, and the extent to which benefits commensurate with the expenditures in question may reasonably be expected to flow therefrom. . . ."

The Michigan commission normalized a gas company's promotion expense, related to a current intense program to obtain customers in new areas, to an amount more representative of ordinary or leveled-off expenses (24 PUR3d 278). However, the amount actually allowed was more than double the sum expended in the preceding year. In recognizing this expense, the commission noted that a substantial number of new customers had been attached, indicating that "the company's sales promotion efforts have borne fruit."

The California commission was of the opinion that a telephone company's advertising expenditures were not excessive "considering the results achieved" (23 PUR3d 209). The commission pointed out, however, that a company seeking a rate increase should scrutinize and control expenditures for advertising to the end that it and the public may be assured that no greater amounts are expended for such purpose than are reasonably justified.

Review of Current Cases

Company Must Base Income Tax Expense upon Accelerated Depreciation Method in Rate Case Despite Use of Straight-line Method

THE Maine commission disapproved a rate increase proposed by the Bangor Hydro-Electric Company because of its failure to use accelerated depreciation in computing its income tax expense for rate-making purposes. According to the commission, such failure constituted an abuse of discretion which would place an unfair burden upon consumers.

The company had converted its depreciation for income tax purposes to the straight-line basis because of an earlier commission decision (17 PUR3d 452). In that case the commission had denied normalized taxes for rate-making purposes and had found that the utilization of accelerated depreciation in an expanding electric utility would result in a permanent tax saving which should accrue to the ratepayers. That ruling was subsequently sustained by the Maine supreme judicial court (21 PUR3d 321).

Conceding that unless the company had abused its discretion the expenses incurred in the rendition of service were primarily a matter of managerial discretion, the commission said that rate regulation cannot be frustrated by a requirement impos-

ing extravagant or unnecessary costs on ratepayers. It found that the company's failure to use accelerated depreciation in computing its income tax expense constituted an abuse of discretion which would place an unfair burden upon customers.

Dissenting Opinion

Commissioner Allen, in a dissenting opinion, said he did not believe the commission had the right to force upon the company a choice of options which the Internal Revenue Code apparently left for the discretion of the taxpayers. For the commission to force this upon the company by mandate, either by direction or indirection, was, in his opinion, contrary to the inherent rights of management and beyond the legal scope of the commission.

Commissioner Allen did not believe that his position in this case constituted a conflict with the Central Maine Power Company case (17 PUR3d 452), where the commission had denied normalization of taxes for rate-making purposes and had found that the utilization of accelerated depreciation in an expanding utility resulted in a permanent tax saving. In that case, he said, the commission was not presented with the question concerning the initial election of tax depreciation methods, but rather with proper rate treatment after such election had been made.

Return Allowance

Although disapproving the proposed rates because of the income tax allowance, the commission did authorize a smaller rate increase calculated to yield a return of 5.75 per cent. *Re Bangor Hydro-Electric Co. F. C. No. 1564, December 30, 1958.*

Conditions Imposed upon Temporary Producer Certificate

With two commissioners dissenting, the Federal Power Commission denied an application by Sunray Mid-Continent Oil Company for rehearing of a letter order which, as a condition to the granting of temporary natural gas producer authority, imposed a condition requiring the producer to submit a statement "as to its willingness to accept a permanent certificate." Also imposed was a condition that the price received by Sunray for its interest in production would be the price ultimately found to be just and reasonable in a rate suspension proceeding.

Sunray argued that the commission was without authority to condition a temporary authorization and that the commission had deprived the company of procedural and substantive due process. The commission thought the argument was without merit, noting that its action was taken in the public interest and was required by convenience and necessity.

Dissent Warns against "Entrapment"

Commissioner Hussey, dissenting, said he especially disagreed with the majority as to the propriety of imposing upon a temporary certificate a condition which requires advance acceptance of a permanent certificate when the terms and conditions of the permanent certificate are not known and might be contrary to the terms of contractual agreements. He further objected to a condition which waives a reasonable contractual limitation of the duration of the contract.

Sunray's contract provided for sales to a pipeline for a period of twenty years. Commissioner Hussey felt that the commission should not attempt to change or control the duration of the contract any more than it should control the contrac-

tual minimum and maximum volumes of gas to be taken during the term of the agreement. He expressed the view that if the provision of the Natural Gas Act which prohibits abandonment without commission approval applies to producer contracts, it would not be necessary to condition a temporary certificate to accomplish the same end. And if the statutory provision does not extend to producer contracts, then the commission should not attempt to broaden the statute in this respect by means of a certificate condition.

Commissioner Hussey warned against impinging upon producers' right of freedom of contract, urging that if producers are to be regulated they should be so regulated as to bolster their confidence in the commission, and not in such a manner as to convey the impression that the commission is endeavoring to entrap them. *Re Sunray Mid-Continent Oil Co. Docket No. G-16134, November 14, 1958.*

Holding Companies Allowed to Retain Stockholdings in Electric Company Serving Atomic Energy Project

THE Securities and Exchange Commission has allowed Illinois Power Company, Kentucky Utilities Company, and Union Electric Company to retain their stock interest in Electric Energy, Inc., a company organized to supply electric energy to an atomic energy project under contract with the Atomic Energy Commission. In the same proceeding, the commission authorized Kentucky Utilities Company to purchase from Middle South Utilities, Inc., its 10 per cent stock interest in the electric company.

In 1951 the commission had entered an interim order approving the acquisition, with resolution of the integration problems under the Holding Company Act reserved for future determination (88 PUR NS 28). In doing so, the commission had noted that the national defense program precluded the delays inherent in making a record relating to the integration problems.

Interlocking Relations and Concentration of Control

The president and vice president of Electric Energy were former employees of two of the sponsoring companies, and five of its directors were presidents of such companies. None of the sponsor companies acquired any control over any of the other sponsor companies, however, by virtue of the proposed acquisitions of the common stock of Electric Energy. Moreover, the respective presidents of each of the sponsor companies who were directors of Electric Energy were not connected in any other way with any other sponsor company. It was also pointed out that the relationships related to a single generating facility.

The commission observed that in other instances it had permitted the joint ownership by two or more holding company systems of a generating plant or other utility facilities constructed for the purpose of transporting or supplying energy to the service areas of their respective systems. It was deemed important in this case that the acquisitions of the Electric Energy stock by the holding companies represented a joint endeavor by them to furnish an unprecedented amount of electric energy to the Atomic Energy Commission.

In view of this, the commission said that it could not find that this association by the sponsor companies, upon the request of an agency of the United States,

to supply the government with electric energy needed for the national defense, was detrimental to the public interest or the interest of investors or consumers within the meaning of § 10(b)(1) of the Holding Company Act.

Effect on Capital Structure

The commission also found that the acquisition would not unduly complicate the capital structure of the holding company systems despite the fact that the electric company would have a capital structure of 3 per cent of common stock equity and 97 per cent of debt, in view of the fact that funds for payment of interest and amortization requirements of 89 per cent of such debt were assured by a power contract with the federal government.

The interests of the security holders of each of the sponsor companies would not be adversely affected in view of the benefits secured by the ability of the companies to receive low-cost power. Similarly, the consumers in the territories served by the respective companies would benefit by the availability of such low-cost electric power.

Integration Standards

Under § 10(c) of the act the commission could not approve the proposed acquisition of the stock if it would be detrimental to the carrying out of the provisions of § 11 of the act and unless the commission could find affirmatively that such acquisition would serve the public interest by tending towards the economical and efficient development of an integrated public utility system.

The commission said that the term "integrated public utility system" as used in § 2(a)(29) of the act requires that the utility assets of the system be physically interconnected or capable of physical interconnection; that they may be economically operated as a single interconnected and co-ordinated system; that the system must be confined in its operations to a single area; and that it may not be so large as to impair the advantages of localized management, efficient operation, and the effectiveness of regulation. It concluded that all of these standards were satisfied. *Re Electric Energy, Inc. File No. 70-2973 et al. Release No. 13871, November 28, 1958.*

Collateral Attack on Commission Order in Mandamus Proceeding Not Permitted

THE Oregon supreme court held that a railroad could not contest the validity of a commission order directing a railroad to continue passenger service in a mandamus proceeding to compel compliance with the order. The statutory procedure for setting aside a commission order is the exclusive method of testing the order's validity, and only in such a proceeding could the railroad raise defenses like failure to make findings of fact upon material issues or complete adjudication in another proceeding.

The railroad had chosen to flout the commission order and to bypass the statutory procedure for testing the validity of such an order. If permitted to do so, pointed out the court, and to defend against an enforcement proceeding by attacking the administrative order collaterally on the merits, there would then be a complete trial de novo, and the burden of establishing the reasonableness of the order would be shifted to the commissioner. If such were allowed in the instant case, it could be done with respect to any commission

order regulating a utility practice. The result could be disruption of the legislative scheme.

Constitutional Questions

The railroad contended that it would be denied due process if the mandamus writ were issued without allowing it to litigate the validity of the order. However, the court pointed out that procedural or substantive due process is not infringed when the legislature requires a railroad to challenge the commissioner's order through an exclusive and adequate review procedure and authorizes the court to compel compliance with the order, even if invalid, until its validity is challenged.

A stay of the administrative order pending review was available, but the company had failed to seek it. Such a stay, if granted, would take precedence over the enforcement order, because there was no time limitation in which to apply for it.

The court decided that the mandamus order should stand. Ex parte orders which affect property rights are not favorites of the law, it pointed out, since the right to notice and a hearing is ingrained in the judicial system. But in the instant case, notice and hearing could have availed the railroad nothing. There was no defense which it could have legally urged. The statute imposed upon the railroad the duty of compliance with the order, and it knew this. A way of avoiding compliance, if its claim of deprivation of constitutional rights was well-founded, or if the order was otherwise unreasonable or unlawful, was pointed out to it by the statute, but it had chosen to ignore the remedy. *Morgan v. Portland Traction Co. 331 P2d 344.*

TV Applicant Lacks Standing to Protest Award After Quitting Certificate Proceeding

A FEDERAL court of appeals ruled that St. Louis Amusement Company, an original applicant in a comparative hearing for a television channel, was not entitled to challenge the disposition of the channel. The appellant had ceased active participation in the certificate proceeding and had been declared in default. It had correctly anticipated that a competing applicant would be found better qualified.

After obtaining a construction permit, however, the competitor assigned the permit to another competitive applicant, with the commission's approval after public notice and without opposition. At this point the appellant protested and demanded that the comparative hearing be reopened and a new license permittee selected.

Upon dismissal by the commission for lack of standing to protest, an appeal was taken. The court agreed with the commission's position, and in turn dismissed the appeal. *St. Louis Amusement Co. v. Federal Communications Commission et al. 259 F2d 202.*

Prohibition of Telephone Directory Covers Justified

TELEPHONE directory covers furnished to subscribers by an outside concern and containing advertising and telephone numbers are harmful to telephone service, the Illinois commission held. It found that they publicize wrong numbers, impede reference to essential service information, interfere with the telephone company's own advertising, and reduce the company's revenues from the sale of ad-

vertising inside the directory. The commission dismissed without prejudice a complaint filed by an advertising concern against a company tariff which prohibited the use of directory covers furnished by the complainant.

The company uses the covers of its directories as a major means of giving the public essential service information and also as an advertising medium for its own services, the commission pointed out. Competitive advertising on attachable directory covers, detracting from the telephone company's own advertising, may have the effect of increasing the cost of telephone service to subscribers. While advertising in the classified pages is not a service or facility in connection with the transmission of messages and is not subject to the jurisdiction of the commission, the amount of advertising revenue is important to both the telephone company and to the general public.

Since the tariff prohibiting the use of the advertising covers had a direct bearing on the quality and cost of utility service and was intended to be a term of the contract between the utility and all of its subscribers, the commission had jurisdiction to pass upon it. *Murphy-Reier, Inc. v. Illinois Bell Teleph. Co. No. 44930, December 17, 1958.*

Denial of Railroad Agency Station Discontinuance Improper

THE Louisiana supreme court affirmed a lower court's judgment setting aside a commission order which had denied a railroad's application for authority to discontinue an open agency station. Although commission orders are entitled to great weight and the burden is on the party contesting an order to show the invalidity thereof, pointed out the court, if the findings and conclusions of the commission do not conform with the law and are not supported by the evidence, the order is unreasonable and the court may reverse or vacate it.

The controlling criteria, in determining the public convenience and necessity in relation to agency service, are the character and population of the territory served, public patronage or lack thereof, remaining transportation facilities, expense of operation as compared with revenue therefrom, and the financial condition of the railroad as a whole.

The small profit stemming from operation of the station in question did not justify the expense incurred by the railroad, the court decided. Further, it was manifestly shown that the traffic could be adequately taken care of at other stations with only the inconvenience of a long-distance telephone call, paid for by the railroad. *Texas & N. O. R. Co. v. Louisiana Pub. Service Commission et al. 106 So2d 438.*

Rate Increase Approved without Rate Base

SO long as the end result of rates is sufficient to service a company's debt and provide a reasonable return to the equity holders, the rate of return on the plant investment is not important, the Louisiana commission observed, in approving a rate increase proposed by Oak Grove Water Company, Inc.

Although the company alleged that its earnings amounted to only 3.5 per cent on a rate base of $107,000, the staff did not attempt to determine a rate base or a

rate of return. The net operating revenue was calculated, however, and the annual cost of preferred stock and debt was determined, along with a reasonable return on equity capital. The company's earnings requirement was then ascertained, based on annual amounts necessary to service the debt and provide a reasonable return to the equity holders. Since the proposed rates would not produce earnings in excess of the earnings requirement, they were not excessive. *Ex Parte Oak Grove Water Co., Inc. Docket No. 7674, Order No. 7692, November 19, 1958.*

Electric Service Extension without Certificate Valid

THE North Dakota supreme court affirmed a reversal of a commission order which had directed an electric company to cease and desist from selling power to a specified customer. The proceeding had been started, on the commission level, by an electric co-operative which claimed that the company had extended service to a station located in its area.

A public utility may extend its service within or to territory already served by it, pointed out the court, necessary in the ordinary course of its business, without obtaining a certificate of public convenience and necessity. The territory already served by a utility includes territory within a reasonable distance of its existing distribution lines or stations, and what is a reasonable distance depends upon the circumstances of the case.

Here the utility had, for many years, been furnishing electrical service in a rural area. Line extensions of a mile or more to reach a single customer were not uncommon. The extension of service by the company to a location in the same general area and .9 of a mile from one of its distribution stations was an extension in or to territory already served by it. *Cass County Electric Co-operative, Inc. v Otter Tail Power Co. 93 NW2d 47.*

Contempt Action against Securities and Exchange Commission Dismissed

THE U. S. district court dismissed a petition of Randolph Phillips seeking to have members of the Securities and Exchange Commission found guilty of both civil and criminal contempt for failure to comply with a court order in a holding company reorganization proceeding. The U. S. court of appeals had allowed Mr. Phillips higher fees for services rendered in that proceeding than those allowed by the commission and had remanded the matter to the commission to modify its findings, opinion, and order. The fees had been paid immediately upon remand, but modified findings, opinion, and order had not been filed.

Subsequently, Phillips became involved in a proxy fight when he sought to be elected to the board of directors of the Pennsylvania Railroad Company. The proxy solicitation material sent out by the railroad in opposition to Phillips quoted from the commission's opinion in the reorganization case. This material was sent with the knowledge of the commission.

After the mailing of the proxy letters, Mr. Phillips demanded that the commission enter an order conforming to the court's remand order and that it move to enjoin proxies received. The commission immediately entered an order but took

no further action as demanded. So he brought the contempt proceeding.

Basis for Civil Contempt

Phillips' petition set forth the commission's failure to enter the supplemental order, but the factual basis for the contempt alleged in the petition was the conduct of the commission concerning his proxy fight and the action or nonaction of the commission in permitting the publication of the proxy solicitation letter.

The court noted that the proxy fight and the conduct of the commission and management of the railroad in connection therewith were matters independent of the reorganization proceedings, in the course of which the mandate of the court had issued. It said that if Phillips suffered damage by reason of any act of the commission, either in failing to restrain or enjoin the railroad company from publishing an improper proxy letter, or in assisting the railroad's management in obtaining from its files certain statements derogatory to Phillips, they were matters not before the court and irrelevant to the contempt issue.

It pointed out that the remand order had not directed the commission to expunge from the records any statements or opinions it previously had made in connection with the reorganization, nor to secrete any portion of its files or records relating to that proceeding. Consequently, the court concluded that there was no basis for civil contempt.

Criminal Contempt

Rule 42 (b) of the Federal Rules of Criminal Procedure provides that the essential facts constituting the criminal contempt charged shall be clearly stated. The court said that excluding the facts relating to the publication of the statements in the proxy letter, a matter the court deemed completely irrelevant to the issue of contempt, the Phillips petition set forth only that an order modifying the previous determination of the commission had not been promptly entered and that the failure to do so was willful.

The court observed that the essential purpose of the remand order was to assure the payment of the fees and disbursements allowed Phillips by the court of appeals. They had been paid promptly in response to that order.

According to the court, the supplemental order of the commission modifying its findings of fact, opinion, and order had no operative effect. Further, the court said, an examination of Phillips' petition and the facts stated therein clearly demonstrated that the purpose in filing the petition was not to vindicate the authority of the court, but to redress the wrongs Phillips had allegedly suffered at the hands of the commission and the railroad's management in the proxy fight. The court insisted upon a showing of probable cause to justify prosecution for a criminal contempt and concluded that none was present in this case. *Re United Corp. 166 F Supp 343.*

Municipal System More Adequate

THE California commission denied an application for a certificate to serve a real estate tract after finding that public convenience and necessity did not require the proposed service. The lines of a municipal water plant extended to within 10 feet of the northerly line of the tract. The municipal system was subject to commission regulation, and an offer to serve the real estate tract had been made by the municipality.

Such service, noted the commission,

would make available to consumers an urban type of water service with numerous wells, large storage capacity, and full-time manager and staff. The applicant had proposed only a one-well, one-pressure tank system, which could not hope to duplicate the service that could be rendered by the city. *Re Topper Estates Water Co. Decision No. 57190, Application No. 40101, August 19, 1958.*

Rate Concessions to Municipalities Discriminatory

THE North Carolina commission, upon rehearing, ordered a telephone company to discontinue all charity discounts and franchise services which it had been rendering, without charge, or at rates lower than scheduled rates. Intervening municipalities had contended that rate concessions they were receiving were in return for services rendered the utility. The commission, however, held that the rate concessions had been granted in return for franchise privileges.

The granting of a concession rate, pointed out the commission, is not permissible, particularly where the concessions differ among municipalities and unreasonable prejudice or disadvantages are created.

The evidence here indicated that the amount of concession which had been granted any municipality had for the most part been arrived at on the basis of the best bargaining agreement possible.

If a utility is permitted to bargain away its revenue with one class of customers, said the commission, it can do so with any class of customers. Every dollar bargained away with one customer must be added to the bills of the other customers in order to receive adequate revenue. Certainly the bargaining away of revenue by concession rates is detrimental to the remaining customers and is to the unreasonable advantage and preference of the bargaining customer.

Furthermore, municipalities do not have the authority or right to levy a franchise tax on a telephone company. The testimony had shown that the municipalities had required a certain amount of concession service for the franchise rights.

If the municipalities rendered service to the utility, as was contended, bills should have been submitted since a utility may not, at any time, furnish telephone service to any municipality except at regularly scheduled rates. The system of swapping services without determining any value therefor could well lead to so many evils, said the commission, as to pose a serious threat to the rate structure of a utility. *Re Carolina Teleph. & Teleg. Co. Docket No. P-7, Sub 88, January 13, 1959.*

ICC's Certificate Omission Held Inadvertent

THE U. S. Supreme Court reversed a judgment setting aside an Interstate Commerce Commission order correcting certificates. The ICC's findings that inadvertence, rather than a policy change, had been responsible for the omission from certificates, issued to a motor carrier wholly owned by an interstate railroad, of a condition that operation would be auxiliary or supplementary to rail service were held supported by the evidence.

A division of the commission had recommended that authorization of the acquisition of the motor carrier be on such condition. The certificates had been prepared by commission personnel whose sole

responsibility was to transpose findings into certificate form. Such persons were not instructed to delete the condition.

Also, it would have been improper for the commission to have changed its original decision as to the propriety of the condition without notice to opposing parties. One of the certificates issued actually contained the condition in question. Commission personnel, the evidence showed, are normally concerned with certificates authorizing unrestricted service by non-rail-affiliated motor carriers. Issuance of certificates to rail-affiliated carriers is unusual.

The Interstate Commerce Commission has the power and duty to correct orders which contain clerical errors or orders which have been issued due to inadvertence or mistake. Of course, such power to correct inadvertent ministerial errors may not be used as a guise for changing previous decisions because the wisdom of those decisions appears doubtful in the light of changing policies. Here the commission's subsequent action in modifying the order by including the condition was not the execution of a newly adopted policy but merely the correction of the inadvertence. *American Trucking Asso., Inc. et al. v. Frisco Transp. Co. 3 L ed 2d 172.*

Lease Approved Subject to Modification

THE California commission approved an application by a telephone company for authority to carry out the terms of an agreement pertaining to the leasing of circuits for transmission of telegraphic messages. However, the order provided that approval was dependent upon the parties mutually agreeing to strike out two objectionable provisions in the lease.

One such provision allowed for an automatic increase in rates without prior commission approval if another telephone company leasing facilities to the same party raised its rates. The vice of the provision, pointed out the commission, was compounded by the fact that an automatic increase in rates would be dependent upon the happening of an event over which the company would have no control. Furthermore, both parties were public utilities subject to the regulation of the commission, and increased charges under such a provision could affect rates charged customers for other service.

Another provision stipulated that the lease should be on a monthly basis. The clear intent of other paragraphs in the lease agreement was to provide for a 10-year lease with monthly charges. Striking out the objectionable provision would correct the ambiguity. *Re California Interstate Teleph. Co. Decision No. 57758, Application No. 40251, December 30, 1958.*

Garbage Certificate

THE Colorado commission granted a permit holder's application for additional authority to transport waste materials upon a showing that existing service would be improved. The commission pointed out that the carrier was not a true public utility, for the reason that its rates were not controlled. The carriers charged what they pleased, or what competition or traffic would stand.

Therefore, the commission could not apply the rules governing a regulated public utility in granting certificates in the public interest.

The commission recognized that the service was important, and was definitely needed by the public, and that if the incoming legislature failed to pass requested legislation, it would be the commission's duty to prescribe rates and to promulgate or approve rules as to service.

In the interim, it appeared to the commission that the granting of additional authority would improve existing service, thus imposing a duty upon the commission to grant the authority requested. *Re Lunn, Application No. 16705, Decision No. 51377, December 9, 1958.*

Existing Service Adequate

THE Florida commission denied an application by a taxicab company for authority to extend service within a two-county area. Existing service was adequate, pointed out the commission, and the existing carrier was prevented from performing service in a certain direction through no fault of its own. (The board of county commissioners had prohibited service in that direction.)

A statute was cited by the applicant, which directed the commission to issue contract carrier certificates as a matter of right and without hearing to any auto transportation company holding a contract entered into with a board of county commissioners owning and operating an airport. The commission noted that such a grant of authority without proof of public convenience and necessity was limited only to transportation between the airport and points within the county. Here, since the contemplated authority involved a two-county operation, proof of public convenience and necessity was required. *Re Yellow Cab Co. of St. Petersburg, Inc. Docket No. 5203-CCB, Order No. 4471, January 13, 1959.*

Certificate Revocation Upheld

THE New York supreme court affirmed a commission order revoking a common motor carrier's certificate. The evidence was held sufficient to sustain the commission's finding that the holder had failed to provide safe and adequate service, equipment, and facilities for the transportation of property as required by statute. The statute authorizing the commission to revoke a certificate for failure to comply with statutes, certificate requirements, or commission rules was held not an unconstitutional violation of due process. *Stepnoski (Steve W. Stepnoski Motor Transportation) v. Feinberg, 179 NYS2d 908.*

Other Recent Rulings

Telephone Plant Sold. The North Carolina commission authorized Southern Bell Telephone & Telegraph Company to purchase and operate properties of a small telephone company serving an adjoining area where the service areas of the companies could be economically integrated and where Southern Bell had the personnel to improve the quality of the existing service and to provide proper

maintenance and operation of facilities in the area of the selling company. *Re Southern Bell Teleph. & Teleg. Co. et al. Docket Nos. P-55, P-24, Sub 217, 3, December 3, 1958.*

Working Capital Allowance. The Pennsylvania commission did not adjust a water company's working capital allowance downward, notwithstanding that state and federal tax accruals offset the amounts needed, where an adjustment would have fallen within the de minimis rule. *Pennsylvania Pub. Utility Commission v. Pottsville Water Co. C. 16926, 16921, 16923, December 22, 1958.*

Right to Reasonable Rates. The U. S. court of appeals held that the Interstate Commerce Act has not extinguished the right of a shipper by motor carrier to reasonable rates for past services but has merely failed to provide an administrative forum for adjudication of damages. *United States v. Davidson Transfer & Storage Co., Inc. 259 F2d 802.*

Eliminating Railroad Line Duplication. The U. S. district court held that the problem of eliminating wasteful railroad transportation, by consolidation of lines or otherwise, is one that challenges the ICC itself, and that no one railroad may arrogate to itself the overall job of eliminating duplicating facilities. *Southern R. Co. et al. v. United States, 166 F Supp 78.*

ICC Discrimination Findings. The U. S. district court held that it could not disturb ICC findings, in a case of alleged discrimination in fixing railroad rates, relating to the likeness of contemporary transportation services rendered by carriers to different shippers and to the substantial similarity of the circumstances and conditions in which they were rendered, where the commission's action was neither arbitrary nor in excess of its authority. *Koppers Co., Inc. v. United States, 166 F Supp 96.*

Private Carrier Contracts. The Louisiana supreme court held that a statute governing motor carriers, which provided that a person furnishing transportation to more than five separate shippers should be prima facie held to be a common carrier and should have the burden of showing that such was not the character of his operations, did not authorize the commission to limit the number of contracts to five but authorized operation as a contract carrier by a person holding more than five contracts if he could rebut the presumption. *Kemper, Inc. et al. v. Louisiana Pub. Service Commission, 106 So2d 460.*

Certificate Restrictions Remain. A bus company failed to prove public convenience and necessity for a requested extension of its operating authority by way of removal of restrictions, where it furnished very little customer testimony as to the need for additional transportation and where such transportation would be in competition with another carrier whose service was shown to be needed and efficient. *Crown Coach Co. et al. v. Arkansas Pub. Service Commission et al. 316 SW2d 819.*

Return on Fair Value. The Pennsylvania commission authorized a rate increase for United Natural Gas Company sufficient to produce a rate of return of 5.85 per cent on a fair value rate base. *Pennsylvania Pub. Utility Commission v. United Nat. Gas Co. C. 16914 et al. November 13, 1958.*

Interest as Expense. The Illinois commission held that, although interest on

equipment obligations is normally treated as part of the return on capital, when no return is realized for a specific period, it is proper to include such interest representing actual dollar expenditures in determining the excess of expenses over revenues resulting from suburban operations of a railroad. *Re Chicago & N. W. R. Co. Docket Nos. 44704, 44741, November 14, 1958.*

Private Placement of Stocks. The Federal Power Commission authorized an electric company to issue, without competitive bidding, a substantial amount of cumulative preferred stock through private sale at $50 par value and at a rate of 5.75 per cent, with an underwriter's placement fee of one-fourth per cent of the par value. *Re California Electric Power Co. Docket No. E-6846, November 17, 1958.*

Capital Needs Drive Rates Up. The New Jersey commission agreed to a rate increase for a water company in order to enable it to make needed plant repairs and additions required for adequate and efficient service. *Re Lawrenceville Water Co. Docket No. 10840, November 19, 1958.*

Pasenger Trains Continued. The New Jersey commission refused to permit the New York Central to discontinue several passenger trains operating between Weehawken, New Jersey, and West Haverstraw, New York, upon findings that continued operation would not materially affect the company's financial condition, that a substantial number of people required continued service, and that bus transportation would not be a satisfactory substitute. *Re New York C. R. Co. Docket No. 10831, November 19, 1958.*

Rate Finding Unnecessary. In adopting an examiner's decision granting certificate authority under the Natural Gas Act, the Federal Power Commission ruled that a finding that proposed contract rates were fair and reasonable was "neither possible nor necessary," pointing out that the proceeding was one for a certificate and not a rate proceeding. *Re Southern Nat. Gas Co. Docket No. G-14560 et al. November 20, 1958.*

Abandonment Not Involved. Where a natural gas producer requested authority to abandon service to a pipeline company and the producer's leasehold assignee at the same time sought authority to continue the identical service at the same rate and under the same contractual provisions, the Federal Power Commission held that no abandonment of service was involved and dismissed the application for abandonment. *Re Scott Oil & Gas Co. et al. Docket Nos. G-14293 et al. November 24, 1958.*

Right to Furnish Service. The Wisconsin commission ruled that either an electric company or an electric co-operative may serve a new hospital site outside a city served by both utilities, as may be contracted for by the hospital authorities, where neither utility had consented to a primary extension of lines by the other and where either was able to render adequate service. *Re Wisconsin Power & Light Co. et al. DR-16 et al. December 1, 1958.*

Accelerated Depreciation and Taxes. Pending final decision in a separate proceeding as to the treatment to be accorded accelerated depreciation for rate-making purposes, the California commission determined the tax expense of a telephone company (which had reverted to straight-line depreciation) after crediting to the

federal income tax account interest calculated on the reserve for income taxes at the rate of return allowed on the company's rate base. *Re West Coast Teleph. Co. of California, Decision No. 57667, Application No. 39988, December 2, 1958.*

Telegraph Rates Increased. The California commission authorized Western Union Telegraph Company to establish intrastate rates at the interstate level as requested by the company, where it appeared that the proposed rates would merely reduce a deficit sustained in intrastate service in California. *Re Western U. Teleg. Co. Decision No. 57660, Application No. 40334, December 2, 1958.*

Fuel Clause Denied. The California commission denied a request that a gas fuel price escalator clause be included in a new steam rate schedule where it had not been shown that the inclusion of the clause was necessary to hold the load and meet the competition of gas fuel. *Re Pacific Gas & E. Co. Decision No. 57656, Application No. 40125, December 2, 1958.*

Tax Liability Allocation. Under the Public Utility Holding Company Act of 1935, the Securities and Exchange Commission approved an agreement between a number of electric companies joining in a consolidated federal income tax return, whereby the tax liability would be allocated between them so as to eliminate certain inequities that would otherwise arise from an unusually large capital gain realized by one of the group. *Re The Southern Co. et al. File No. 70-3739, Release No. 13876, December 4, 1958.*

No Prescriptive Right. The Colorado commission held that no individual, by unlawful operation, could gain a prescriptive right to serve any territory or customer, since orderly process of regulation of transportation rights requires that authorities and certificates be assigned on the basis of public need. *Colorado Milk Transport, Inc. v. Rutt, Case No. 5143, Application No. 16345, Decision No. 51347, December 4, 1958.*

Permissive Increase. The Colorado commission, in a permissive order, authorized railroads to make the same relative increase in intrastate traffic rates as had been authorized by the ICC on interstate traffic, leaving to managerial discretion whether or not the full increase would be taken. *Re Freight Rates and Charges, Application Nos. 14969, 16166, Decision No. 51355, December 8, 1958.*

Sewer Rates Sharply Increased. The Wisconsin commission approved a proposed 50 per cent increase in sewer rates in the village of Saukville, Wisconsin, along with an increase from $1,000 to $5,000 in the general sanitation charge paid by the village; but the new rates will yield only about 4.1 per cent on a net book value rate base which includes new construction being put into service. *Re Village of Saukville, 2-U-5089, December 9, 1958.*

Base Rate and Exchange Revision. Recognizing the need for an equitable difference in rates between telephone service groups, the North Carolina commission authorized Southern Bell Telephone & Telegraph Company to extend base rate areas and to revise exchange groups into more equitable rate groupings. *Re Southern Bell Teleph. & Teleg. Co. Docket No. P-55, Sub 193, December 19, 1958.*

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esides providing ample desk space, the insulated uninsulated pedestals underneath the counter mit a completely flexible arrangement for rds, cash drawers, adding machines and type- ers. Customer History and Service records are immediately behind seated clerk, readily avail- able at all times. Any clerk has unhampered access to all records, easily handling any transaction with the customer.

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DIVISION OF SPERRY RAND CORPORATION

Industrial Progress

$134-Million To Be Invested by American Elec. Power System

THE year 1959 will be another big construction year on the American Electric Power System and the fourth in the AEP System's unprecedented 5-year expansion program. This year's budget of $134,000,000, part of an estimated $800,000,000 to be spent during 1956-60, continues to emphasize the growth of the electric utility system that serves parts of seven states through its six operating companies.

Of the $134,000,000 in the 1959 construction budget, the biggest share —almost $72,000,000—will be spent for completion or continued construction of about 1½-million kilowatts of new generating facilities. Other big shares of the budget are slated for distribution lines and stations, about $40-million, and transmission lines and stations, over $16-million.

Scheduled for operation this year are the 225,000-kw unit 3 at Kammer plant and the world's largest generating unit of 450,000 kw at Breed plant. Continuing under construction in 1959 will be the 450,000-kw unit at Philip Sporn plant and the 320,000-kw Smith Mountain Hydro Development.

Ohio Power Company's Kammer Plant Unit 3 is scheduled for operation in February. It will mark the completion of the 675,000-kw plant at Captina, West Virginia.

Breed plant near Terre Haute in Sullivan county, Indiana, is the other major plant to be placed in operation this year. The Indiana & Michigan Electric Company's plant is scheduled for service in the fall when its record-capacity unit will come on the line.

The second 450,000-unit to go into service on the AEP System continues under construction at the Philip Sporn plant, jointly owned by Ohio Power and Appalachian Power companies. Upon completion in 1960 of Ohio Power's Unit 5, Sporn plant at Graham Station, West Virginia, will join the nation's limited circle of million-kw plants. Sporn plant capacity will rise to 1,050,000 kw.

Also continuing under construction for 1959 will be Appalachian Power Company's Smith Mountain Hydro Development, destined to be the largest hydro development in the state. This project, on the Roanoke river in Virginia, will consist of two dams, combining conventional development of hydro-electric power with pumped storage. It is scheduled for operation in 1961.

At the end of 1958, the AEP System had a total generating capability of 5,432,000 kilowatts—the largest capacity of any power company. By the conclusion of the current expansion program in 1961, AEP System capacity will be near 6½-million kw.

New York State E&G Plans to Spend $54,000,000

THE New York State Electric & Gas Company plans to spend about $54,000,000 on new construction in 1959 and 1960, according to Joseph M. Bell, Jr., president. Approximately $28,000,000 is expected to be spent in 1959.

He explained that the 1959 program will be less than the 1958 construction expenditures of about $34,000,000 as no appropriation is included in 1959 for the start of construction of new major electric generating facilities.

The 1958 construction included expenditures on the 142,000-kilowatt steam electric generating unit, which doubled the capacity of Milliken station, 15 miles north of Ithaca. It was placed in service in November.

"The company expects that a substantial amount of power from the Niagara River power project of the New York State Power Authority will be allocated to it," he said.

The Power Authority expects produce its first power at Niagar 1961 and to complete the projec 1962. The power allocated to the c pany may be adequate to permit defer the completion of any major dition to the company's steam elec generating facilities until at least 1 or 1964.

Expenditures in 1959 and 1960 the transmission and distribution cilities to serve the growing requ ments of the company's customers expected to be more than they wer 1957 and 1958.

"At the end of this year we have almost $400,000,000 of elec and gas property to supply the n of our customers," he said. "Al $280,000,000 of new and impro electric and gas facilities have b built by the company during the ten years alone."

Westinghouse Introduces 'To Electric Home' Concept

A NEW idea in American Homes which electricity does all the wor including heating, cooling, cook cleaning and entertaining—has b introduced by the Westinghouse E tric Corporation. At the same ti Chris J. Witting, vice president charge of the company's consu products group, said Westingho will spend $2,500,000 during 195 a public information program to in duce to the public "this new con in American living—the Total E tric Home."

"We are convinced that we are the verge of a new and popular mand and trend in hom constr tion," Mr. Witting said. "This is trend toward Total Electric Livin which electricity will provide not o the many conveniences which m life easier but will heat and co home electrically."

(Continued on page 26)

1952 Pioneer joined with other groups, all reporting to the Atomic Energy Commission, for constant study of atomic energy application. Today Pioneer qualified as a consultant to industry in the application of atomic reactor systems to the generation of electric power. Presently, Pioneer is acting as architect-engineer and supervisor of construction of the 66,000 kw commercial atomic power plant shown here. Allis-Chalmers Mfg. Co. is the prime contractor. Scheduled for 1962 completion, the plant, for the Northern States Power Co., will be known as the "Pathfinder".

Organized as Central Utilities Atomic Power Associates, these utilities will share in the research and development costs: Northern States Power Co., Central Electric and Gas Co., Interstate Power Co., Iowa Power and Light Co., Iowa Southern Utilities Co., Madison Gas and Electric Co., Mississippi Valley Public Service Co., Northwestern Public Service Co., Ottertail Power Co., St. Joseph Light and Power Co., Wisconsin Public Service Corp. PIONEER SERVICE & ENGINEERING CO., 231 South La Salle Street, Chicago, Illinois.

ATOMIC
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57 YEARS

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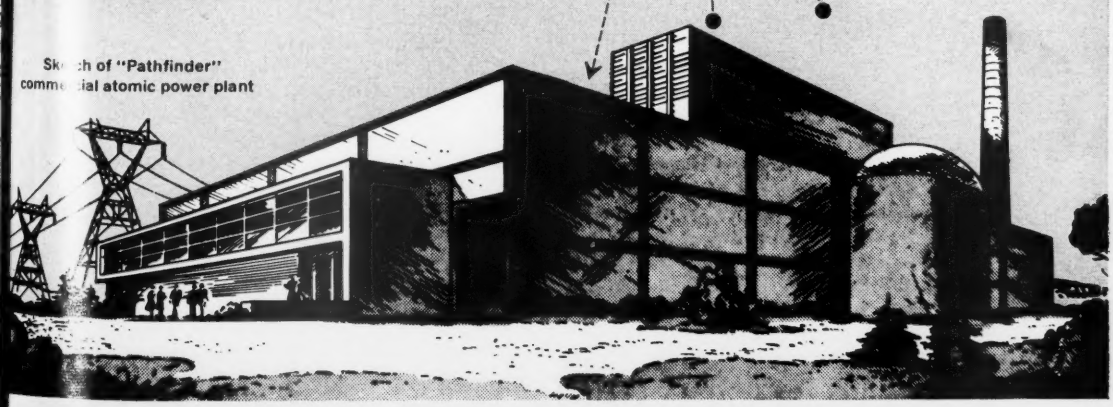
NEW!

On your letterhead, write for 40-page booklet, "Pioneering New Horizons in Power". Describes, illustrates Pioneer's engineering services, and corporate services, from financing to operation.

Sketch of "Pathfinder" commercial atomic power plant



Mr. Witting unveiled and described in detail home "electrical centers," or portions, of a model Total Electric Home which have been built and will tour the country. The "home" included a "Food Preparation Center," "a Weather Control Center," and an "Entertainment Center."

He described the Total Electric Home as "being readily available today, with today's technology and building techniques." He said that 90 per cent of the products used in the home can be purchased on the market today.

"We designed the Centers not as a model home and not to try and sell that home, but just to assure ourselves that everything we talked about was real and practical," he said.

The "Entertainment Center," he said, is built so that everything for good home entertainment is easily accessible—a television set built into the wall; next to it a tape recorder, AM-FM radio, stereo hi-fi, records and tape storage, games, card tables and chairs.

"A flick of your finger in the Entertainment Center," Mr. Witting said, "and a movie screen descends to a sition where it is ready for the sh ing of slides or home movies."

The "Weather Contro Cen masterminds the atmosphere in Total Electric Home. At this Cen it is possible to actuate heating cooling equipment and to ontrol Precipitron electronic air leaner germicidal lamp which elim nate po and airborne health haz rds. Center controls self-adj sting shades and draperies. It ca de-ice sidewalk and driveway a d, in spells, can control the law sprink For the amateur weather an, the strument panel contains ind di tion and velocity gauges, a barome inside and outside therm meters relative humidity indicato s.

The "Food Preparation Cent said Mr. Witting, is desig ed for person who loves to cre te mea There are platform range, an e tronic oven to cook food in minu a 24-inch wall oven which can k a roast rare and hot up to six ho an infrared food warmer, waste posers, plenty of refrigerator freezer space. There is a plan place for everything, including "ev conceivable portable appliance w automatic timers."

Mr. Witting said that Westi house is organizing a national s force of experienced men to w with builders and cooperating elec utilities on the Total Electric Ho project. He said these men will ordinate the distributors of all W inghouse products for the home thus make it easy for builders to what they require from one source one time.

This advertisement is neither an offer to sell nor a solicitation of offers to buy any of these securities. The offering is made only by the Prospectus.

NEW ISSUE

January 20, 1959

500,000 Shares

Southern California Edison Company

Common Stock

($25 par value)

Price $60 per share

Copies of the Prospectus may be obtained from any of the several underwriters, including the undersigned, only in States in which such underwriters are qualified to act as dealers in securities and in which the Prospectus may legally be distributed.

The First Boston Corporation **Dean Witter & Co.**

Illinois Power Sets Capital Outl In '59 at $36 Million

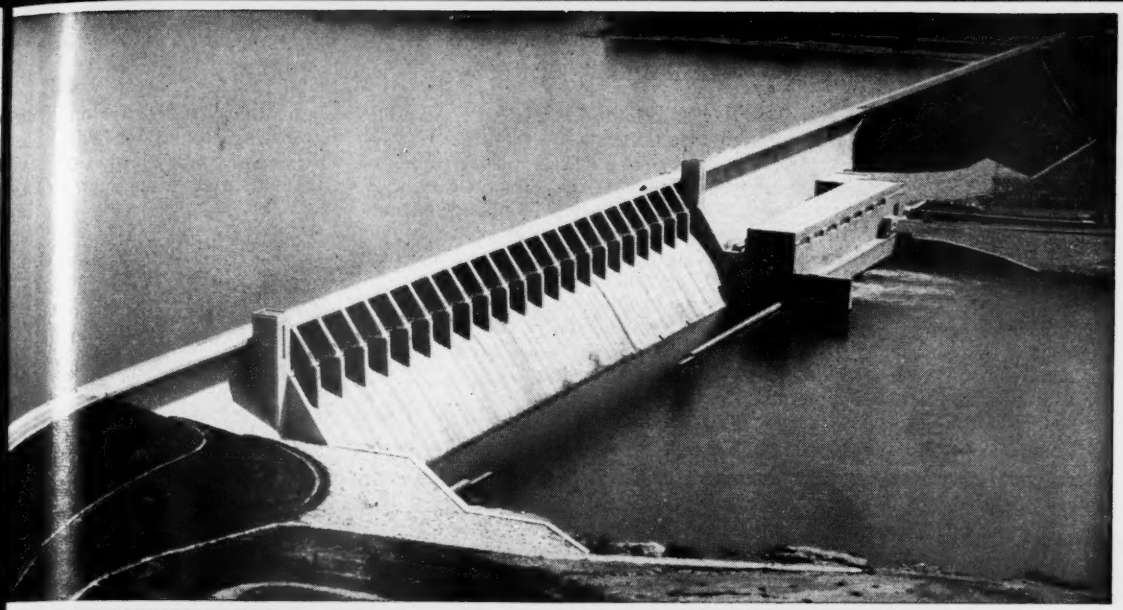
ILLINOIS Power Company, De tur, Illinois, will spend $36,000,0 for capital improvements in 1959 $200 million over the next five ye Allen Van Wyck, president, forec

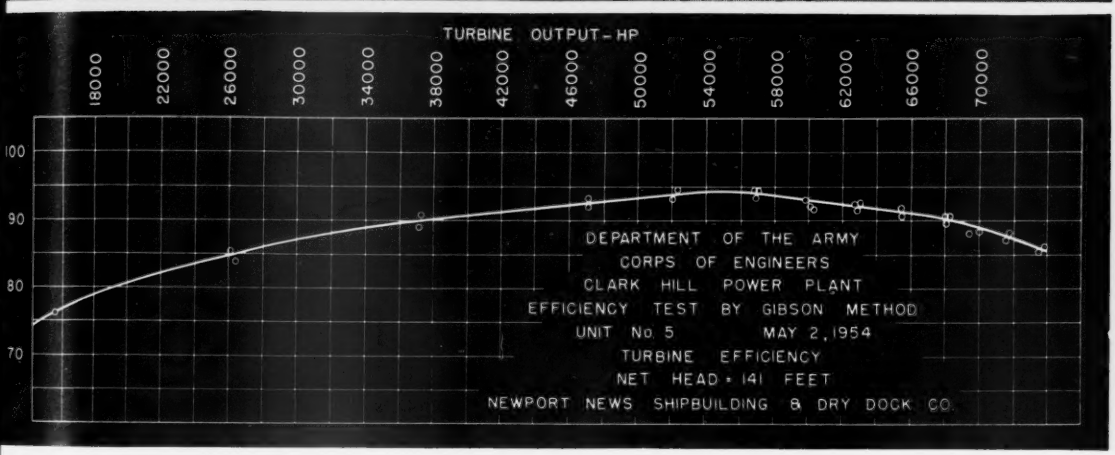
Of the $36 million budgeted for t year, $26,800,000 is for electric ad tions and $9,200,000 for gas, Mr. W Wyck said.

He noted spending for gas impro ments include developmen of an derground storage area ear Be ville, Ill., which will enable the co pany to add 17,000 space-h ating tomers.

The largest item in the elec budget is a 225,000 kilowa t addi to the firm's Hennepin pow r stat

(*Continued on page* 28)





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THE GRAPH shows performance of a 55,000 horsepower turbine, one of seven such units built by Newport News for the Clark Hill Power Plant (see photo).

Shape of the curve is typical . . . not exceptional . . . for Newport News turbine performance. Regular, uniform, showing no-cut-off at full load, it indicates consistent delivery and stable operation.

And especially, experience in design and model testing.

At Newport News, turbine runners are continually being designed and redesigned for improvements in performance. And often upon receiving a contract for turbines, a model setting is built and complete tests made. So far, Newport News has filled turbine contracts with an aggregate rated output in excess of 7,000,000 horsepower.

Penstocks, spiral casings, valves, pumps, rack rakes and other essentials are also designed and built by Newport News. Our illustrated booklet, "WATER POWER EQUIPMENT," will be sent to you upon request.

Engineers . . . Desirable positions available at Newport News for Designers and Engineers in many categories. Address inquiries to Employment Manager.

Newport News

Shipbuilding and Dry Dock Company
Newport News, Virginia

R-R Folder Describes Punched-Card System for Small Business

A NEW, low-cost system of punched-card data processing specially designed for small business is described in a folder just published by Remington Rand Univac Division of Sperry Rand Corporation.

The new system makes it possible for small companies, or branches and plants of larger ones, to machine process such accounting work as: production control, payroll, inventory control, accounts receivable and sales analysis.

Consisting of four basic pieces of equipment — the alphabetical punch, sorter, alphabetical tabulator and summary punch, and reproducing punch — the system operates at a speed of 60 cards-per-minute, and can be adjusted to perform faster. Additional units can be added as desired.

Cost of the specially-engineered equipment is below comparable manual systems.

A copy of the illustrated folder (U1638) can be obtained from any branch office of Remington Rand, by writing Remington Rand Univ Division of Sperry Rand Corporati 315 Fourth Avenue, New York N. Y.

Turbine-Generator Booklet Offered by Westinghouse

A 40-PAGE booklet desc bing t bine-generators from 500(w up 100,000 kw for industrial d elect utility applications is offe d by Westinghouse Electric Cor oration

The booklet is divided into t main sections—the turbine ction a generator section. In the t bine s tion, standard features as ell as s cial features are describe and p fusely illustrated. This se ion is ranged for easy reference elating condensing and noncond sing t bines, blading, shrink fitted dis steam chest, steam seals, no zles, be ings and rotors. A comple descr tion is given, with diagra s, of hydraulic governing syste . This followed by the many gen rator f tures using air and hydrogen cooli

For a copy of this booklet, B-73 write Westinghouse Electric Corpo tion, P. O. Box 2099, Pittsburgh Pa.

Southern Co.'s 5 Units Plan 19 Offered by Westinghouse

DIRECTORS of the Southern Co pany approved a 1959 construct budget of $188,000,000 for the co pany's five operating subsidiaries, from the 1958 budget of $14 million.

A three-year construction bud including the 1959 figure, of $5 000,000 also tentatively was appro by the Southern directors. The th year program will result in addit of 1,397,250 kilowatts capacity to company's present generating ca bility of 3,780,000 kilowatts, a spok man said.

The 1959 budget apportionm among the operating companies $55,100,000 for Alabama Pow $49,200,000 for Georgia Power, $ 000,000 for Gulf Power, $14,600,0 for Mississippi Power and $60,40 000 for Southern Electric Generati Company.

Closed-Circuit TV Used for Remote Viewing from Control Room

A CLOSED-CIRCUIT televis system that brings controls and vis checks into one central location is

This announcement is neither an offer to sell nor a solicitation of an offer to buy any of these Debentures. The offer is made only by the Prospectus.

$59,609,500

Consolidated Edison Company of New York, Inc.

4% Convertible Debentures, due 1973

Dated February 13, 1959 *Due August 15, 1973*

Convertible, unless previously redeemed, into Common Stock on and after May 1, 1959 at a conversion price of $61 per share, payable by surrender of $100 principal amount of Debentures and $22 in cash in exchange for each two shares of Common Stock, subject to adjustment in certain events.

Holders of the Company's outstanding Common Stock are being offered rights to subscribe for the above Debentures at the rate of $100 principal amount of Debentures for each 25 shares of Common Stock held of record on January 26, 1959. Subscription Warrants will expire at 3:30 P.M., Eastern Standard Time, on February 13, 1959.

Subscription Price 100%

The several Underwriters have agreed, subject to certain conditions, to purchase any unsubscribed Debentures and, both during and following the subscription period, may offer Debentures as set forth in the Prospectus.

Copies of the Prospectus may be obtained in any State from only such of the undersigned as may legally offer these Debentures in compliance with the securities laws of such State.

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WERTHEIM & CO. *DEAN WITTER & CO.*

January 28, 1959.

eration at the Tecumseh power station of The Kansas Power & Light mpany

Furnished by General Electric, the stem is used to monitor flame and ter level gauges on three boilers of mid-western utility's power generation system.

Both boilers and gauges are quite note (nearly 300 feet) from the in control room. With the new stem, periodic checks of these areas no longer necessary. Operators in air-conditioned control room can look directly at the TV monitors see that all burners are firing and t the proper water level is being intained.

Cameras monitoring the boiler mes "look" through holes in the lers. The camera's lenses are oled by compressed air.

ater-cooled Throw-out Clutch atured in Folder on Cleveland 190 Backfiller

HE big Cleveland 190 Pipeline ckfiller—with its new water-cooled row-out clutch—is the subject of a w 6-page folder published by The eveland Trencher Company.

Copy describes Cleveland's exclue new throw-out clutch which is oled by continuous circulation of ter from the engine's cooling sysn. The clutch prevents overheating, ovides accurate day-long continus casting control, maintains proper tch adjustment and adds hundreds hours to the work life of the clutch mponents.

Action photographs show the imoved Cleveland 190 backfilling avy spoil on big pipelines. One of turs, new models in the field backed more than 40,000 feet of trench 20-inch diameter pipe in a 13½ r stretch.

Copies of the new folder on the eveland 190 Backfiller are available e of charge by writing The Clevend Trencher Co., 20100 St. Clair enue, Cleveland 17, Ohio.

G-E to Build 200,000 kw Unit For New England Power

LE of a 200,000-kilowatt turbinenerator unit to the New England wer Company was announced reently by General Electric Company's rge Steam Turbine-Generator Dertment.

The huge powermaker will be inalled in the Brayton point station of the New England Power Company of the New England Electric System, Boston, Mass.

Shipment is scheduled for late 1961.

This will be a 3600/1800-RPM, cross-compound, double-flow reheat turbine-generator unit, and is the first of this type purchased by the utility.

Steam conditions will be 2400 pounds per square inch, 1,000/1,000 degrees Fahrenheit.

The unit's two generators will be conventionally cooled with a combined capability of 260,000 KVA at 30 psi hydrogen pressure and at 0.9 power factor.

When the powermaker is placed in operation it will generate enough electric power to supply the average yearly needs of about 400,000 New England residents.

Public Service Elec. & Gas Plans $160,000,000 Expenditure for Construction in 1959

DONALD C. Luce, president, Public Service Electric and Gas Company, Newark, New Jersey, reports that expenditures for new plant totalled nearly $650,000,000 during the past six years. With demands for electric and gas service continuing at a high level, the company contemplates expenditures of about $160,000,000 for new construction during 1959. Mr. Luce notes that this will mark the fourth consecutive year the company's construction expenditures will exceed $100,000,000.

Progress continues on two new electric generating stations presently under construction. At the $110,000,000 Bergen generating station in Ridgefield, it is expected that the first 290,000-kw turbine generator will be in operation this Spring, with the second unit of similar size operating later this year. The Mercer generating station, located on Duck Island, Hamilton Township, near Trenton, will have two 320,000-kw turbine generators with a total capacity of 640,000 kilowatts and will cost approximately $130,000,000. The first unit is scheduled to go into operation in 1960 and the second a year later. Upon completion of the Bergen and Mercer Stations, the company's total effective capacity of the eight generating stations in the Public Service system will be 3,692,500 kilowatts, an increase of 45 per cent over the capacity on January 1, 1958.

Among other major projects under way are new switching stations in Newark and Gloucester, each of which will cost approximately $6,000,000, to meet growing loads in both the Newark and South Jersey areas. In addition, the company expects to install in 1959, according to Mr. Luce, 24,000 electric meters, 3,000 miles of underground and overhead wire, 7,000 additional distribution transformers, 5,500 new street lights and approximately 12,000 additional poles.

Demands for gas service are expected to increase in the area of New Jersey in which are located the 1,100,000 customers served by the company. In 1958, more than 25,000 gas heating installations were added, bringing the total number of the company's gas heating customers to approximately 245,000. To meet the increased demands of an expected 27,000 additional heating customers, as well as other consumer requirements, more than 300 miles of gas mains, 23,000 services and 28,000 meters will be installed in 1959. The expenditures for new gas facilities will approximate $25,000,000.

Gas Unity Committee Lists 1959 Personnel

A FOURTEEN-MAN group headed by Gordon M. Jones, sales manager of the United Gas Improvement Company, Philadelphia, is conducting the 1959 program of the Gas Unity Committee.

The committee expanded during the past few months, links utility gas and liquefied petroleum gas suppliers and gas appliance and equipment manufacturers. Its interests include a wide range of sales building, product development and fuel utilization subjects of mutual interest to these three major sections of the gas industry.

H. Leigh Whitelaw, executive vice president of the Gas Appliance Manufacturers Association, is secretary of the committee and its GAMA representative. His office is at 500 Walker Building, 734 Fifteenth street, N.W., Washington, D. C.

Representing the Liquefied Petroleum Gas Association are Howard D. White, executive vice president of LPGA, Chicago; W. R. Sidenfaden, president of Suburban Gas Service, Inc., Upland, Calif.; C. J. McAllister, president of the Parlett Gas Company, Waldorf, Md., and J. Woodward Martin, assistant sales manager of the Shamrock Oil and Gas Company, Amarillo, Tex.

(*Continued on page* 30)

The representatives of the National LP-Gas Council on the committee are George J. Schulte, Jr., director of the council, Chicago, and Glen McGuire, vice president of the Union LP-Gas Company, Iola, Kan.

Representing the American Gas Association, are Jones; C. S. Stackpole, managing director of AGA, New York; Fred H. Faulstich, vice president of the Springfield Gas Light Company, Springfield, Mass., and Jerome P. Happ, vice president—sales of the North Shore Gas Company, Waukegan, Ill.

In addition there are three ex-officio members, Arthur E. Bone, president of LPGA and vice president of the Eastern Propane Company, Malvern, Pa.; J. Theodore Wolfe, president of AGA and of the Baltimore Gas and Electric Company, Baltimore, Md., and Clifford V. Coons, president of GAMA and executive vice president of the Rheem Manufacturing Company, New York.

Martin, Happ, McGuire and Whitelaw have been appointed as a subcommittee to review various plans at the local level for gas industry cooperation.

Westinghouse Proposes 330,000 Kilowatt Atomic Power Plant

AT A recent meeting with electric utility executives, Westinghouse reviewed its multi-front nuclear power reactor development program and announced that it was prepared to develop, design and manufacture the equipment for a 330,000 kilowatt nuclear power plant.

The plant would be of an advanced pressurized water reactor design—the reactor type which has been carried to the most advanced state of development of all reactors in the nation's civilian atomic power plant program.

The disclosure to the electric utility industry that Westinghouse was ready to embark on such a project was made by Charles H. Weaver, vice president in charge of atomic power, who said:

"We believe this plant will produce power at costs competitive with fossil fuels in the higher fuel cost areas of the United States.

"It is the big plant required before we will know the answer to economical atomic power. It could start providing that answer by 1965," Mr. Weaver said.

He emphasized that the proposal for a 330,000 kilowatt plant was part of the company's broad, multi-front program to develop economic and useful atomic power. "This program, we believe, generally coincides with the recommendations of the Ad Hoc Committee which recently submitted its report and recommendations on the U. S. civilian atomic power program to the U. S. Atomic Energy Commission," Mr. Weaver said.

"We do not believe that any one reactor is best for all sizes and locations, for all times, and for all requirements. Because of this, the Westinghouse development program offers a choice of reactor types.

"The pressurized water reactor already has gone through three generations of plants—the Nautilus prototype in Idaho, the first large U. S. atomic power plant at Shippingport, Pa., and the Yankee Atomic Electric Company plant now under construction at Rowe, Mass."

The proposed 330,000 kilowatt plant would be the fourth generation of the pressurized water type. The other reactor types now under development at Westinghouse, Mr. Weaver said, include:

The pressure tube reactor sponsored by the Carolinas-Virginia Nuclear Power Associates who will build a 17,000 kilowatt prototype at Parr, N. C.;

The organic moderated fluidized bed reactor being studied for the City of Burlington, Vermont, which is looking toward eventual construction of a 50,000 kilowatt plant;

The integral boiling superheat reactor which, Mr. Weaver said, "is ready for the prototype stage and would be the most advanced of the water systems, offering steam temperatures equal to those of conventional plants."

The nuclear thermoelectric plant, which is still very much in the future, would combine the twin concepts of nuclear energy and direct conversion of heat to electricity. "This is a program to watch," the Westinghouse executive said. "It is not yet at the plant design stage and important technical advances are needed, but it holds great promise for the future." Westinghouse has previously announced the development of thermoelectric materials which advance the efficiency of thermoelectric devices.

"The homogeneous reactor," Mr. Weaver said, "has a most promising future. Just where this reactor fits in the time scale of nuclear power development is not immediately clear. When it is appropriate to once ag proceed with a substanti deve ment effort, Pennsylvania Power Light and Westinghouse believe a prototype plant is the next step.

Michigan Wisconsin Pipe Li $31,200,000 Outlay Approv

THE Federal Power Com ission thorized Michigan Wisc sin Line Company, Detroit, t const $31,200,000 of natural ga facili

The facilities, to be built n Kan Missouri, Iowa, Illinois an Michi will enable Michigan W consin transport an additional 0 mil cubic feet of gas daily fr m the verne field in Oklahoma.

West Penn Electric Plans $50,000,000 Program

CONSTRUCTION expenditures the West Penn Electric System year are estimated to be about $ 000,000. This is about the s amount as was spent in 1958.

ASA Revises Volumes on Transformers, Reactors

THE "American Standard Requ ments, Terminology, and Test C for Distribution, Power, and Re lating Transformers, and Reac other than Current-Limiting Re tors" have been revised and rep lished in six separate volumes.

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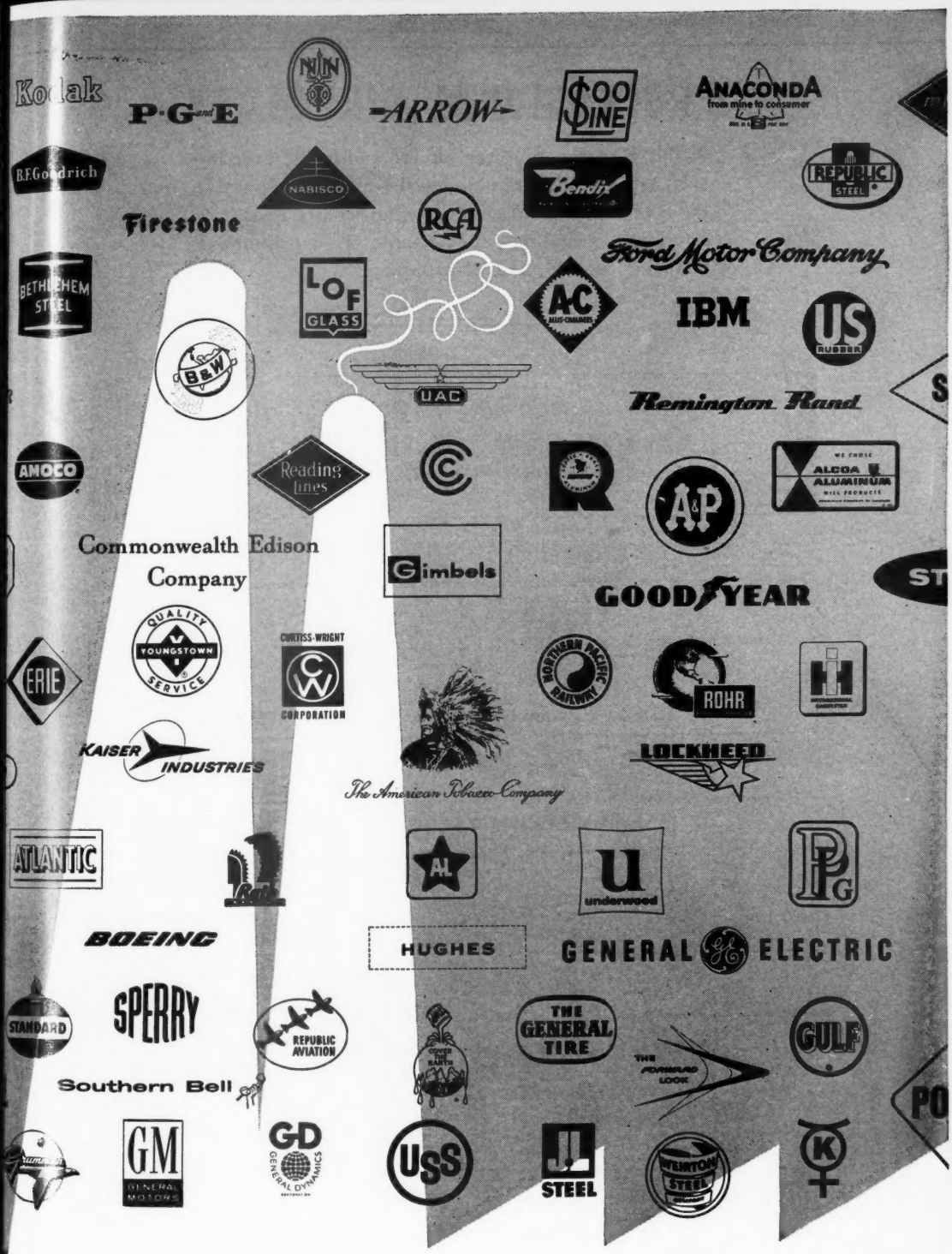

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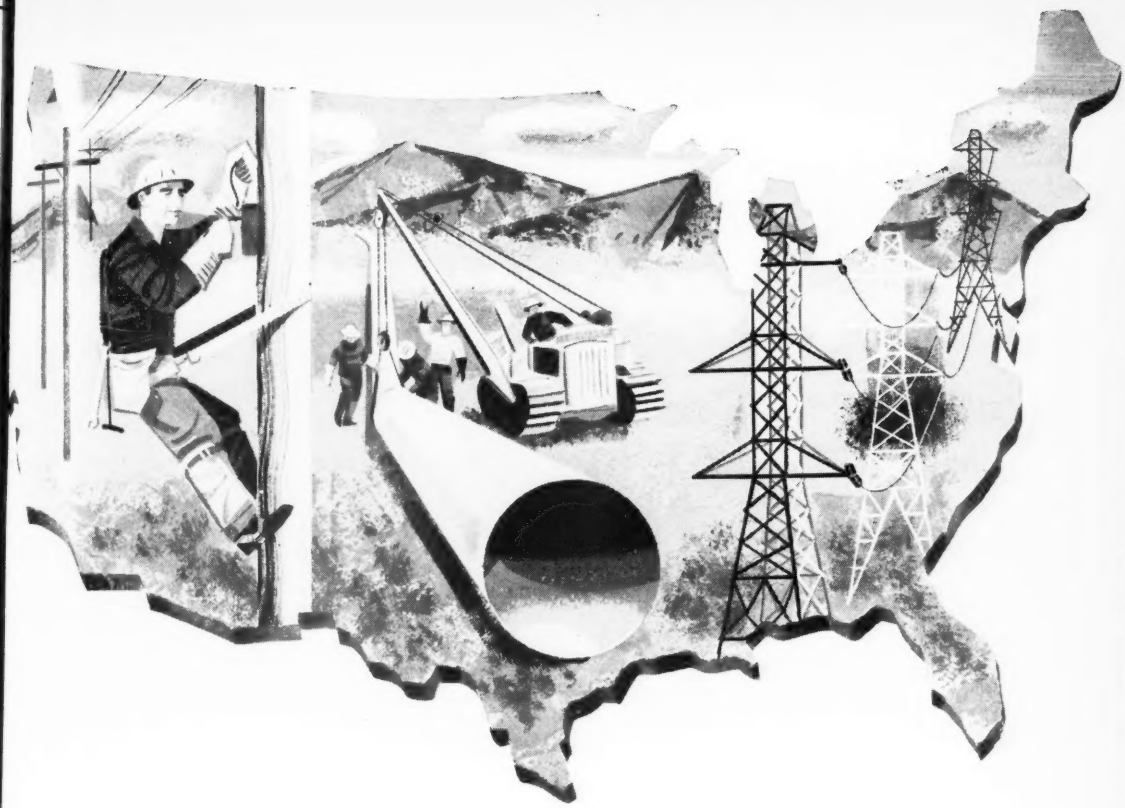

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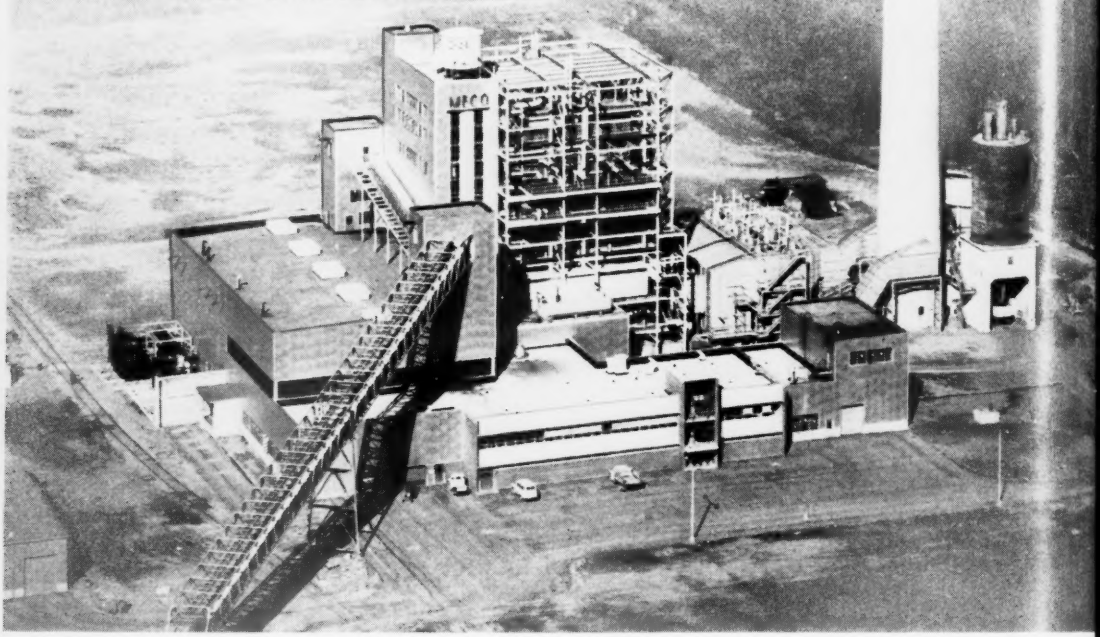

The initial unit of Metropolitan Edison Company's new Portland Station is now in commercial operation.

Named for its location in Eastern Pennsylvania, this new Gilbert designed station presently contains a 150 MW cross-compound, axial flow, turbine generator operating at 2400 psig with 1050° F. initial and 1050° F. reheat temperatures. Steam is supplied by a 1,150,000 lb. per hour Monotube generator using pulverized bituminous coal.

Designs for a second unit of 225 MW capacity are currently on the Gilbert drawing boards.

Portland Station is but one of many power generating stations throughout the world that Gilbert Associates, Inc. is proud to have been selected to design and engineer.

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